

# THE TOWER HOUSES OF WEST CORK

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# TOWER HOUSES OF WEST CORK

## ABSTRACT

This is a study of the local development of Irish Tower houses in West Cork that were built between c.1400-1650; these buildings were mostly built by Gaelic clans or Hibernicised Norman families. The study is based on fieldwork and published historical research. A corpus of individual tower house reports provide the raw data. The purpose has been to date these structures by reconstructing the development of their layout. The internal layout of these features is analysed in terms of function; apparent role changes indicated by these are related to changes in Gaelic society known from text-based research. Where possible, inferences are made from the layout of the regional tower houses to better understand the role they played in Gaelic society. The western part of the Survey region has an exceptionally high concentration of fifteenth-century tower houses. These 'raised entrance' tower houses are argued to be an archaic form directly inspired by relic Anglo-Norman hall houses; another ancestral form in the east part of the Survey region is the 'refuge tower'. The role of the tower house and its associated settlements in post-medieval seigneurial settlement and Gaelic/planter interaction is discussed. Sophisticated construction technology, including the systematic use of ratios and units, has to be considered against perceived notions of Gaelic society. The relationship of tower house construction to a wave of Friary construction in the Fifteenth Century is considered; it is argued that an undocumented fifteenth-century economic boom and population expansion in the Gaelic regions was connected with a need for the elite to define land holdings; the latter was an important departure from traditional Gaelic social organisation. The importance of 'castle studies' as a major tool of Irish archaeology is emphasised and possible inter-disciplinary avenues for further research are suggested.

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- (F) Fireplace flue
- (FP) Fireplace
- (G) Garderobe
- (GC) Garderobe chute
- (GL) Gunloop
- (P) Press
- (S) Slopstone

(S) = sketch plan

(N.D.O.) = feature not directly observed

### **Carriganass**

- 1,i Ground floor
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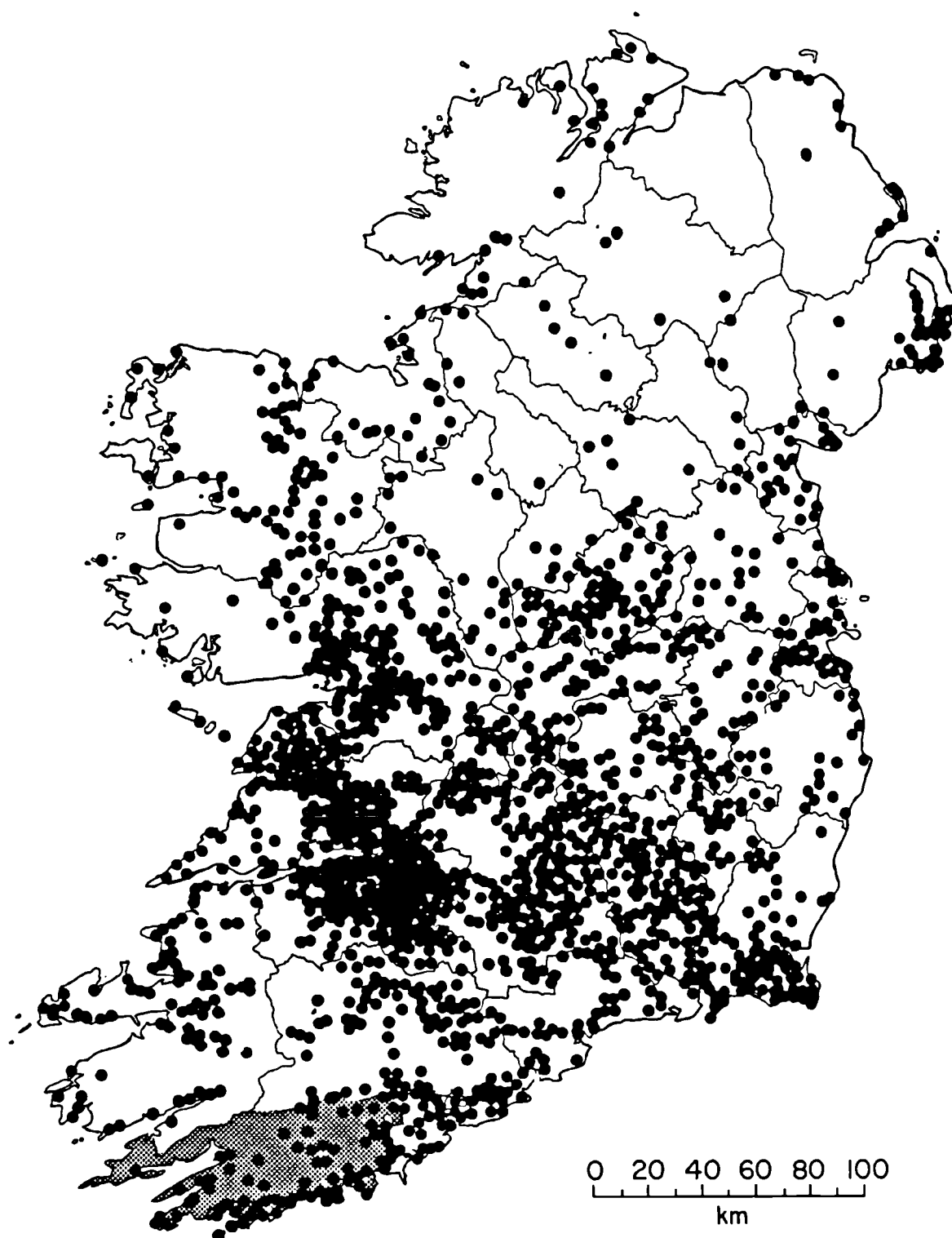
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I began this thesis as a bachelor and am now married with two sons. It is to my wife, Kate, who will now be seeing more of me, that I dedicate this.

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**Figure a**

Location of the Survey region map, showing density of tower houses relative to the rest of Ireland (after Ó Danachair 1979)

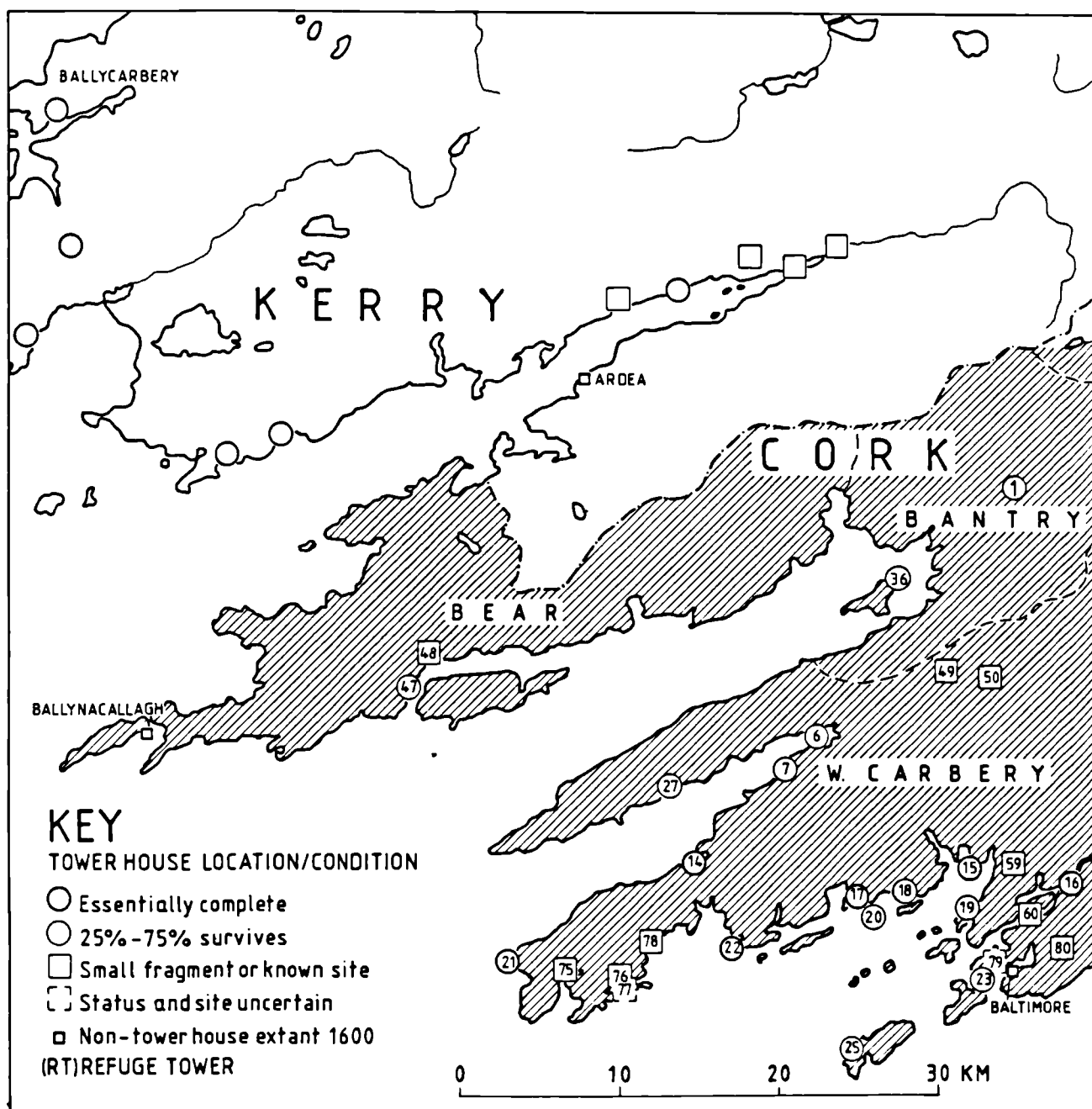


Figure b (i)

Modern baronies comprising the Survey region (hatched)  
 and current condition of tower houses





Figure b (ii)

Modern baronies comprising the Survey region (hatched)  
and current condition of tower houses

NAME	doors	clan/sept	floor division	floor number	largest floor	vaulted floor	latrine	fireplace	hours loop	gunloop	putlog grid	unit type
1 Carriganass	GE?	O'Sullivan Beare	N?	5	3	2,4	?	?	N	Y	N	?
2 Togher	GE	MacCarthy Glean-acroim	Y	5	3	N	N	Y	N	Y	N	SF
3 Ballyna-carriga	GE	Hurley	N*	4*	4	4	Y	Y	N	Y	N	?
4 Castle Donovan	GE	O'Donovan	Y	5	2	2	N	Y	N	Y	N	SF
5 Ballinward	GE	Hurley	Y	5	4	N	N	Y	Y	Y	N	?
6 Coolnalong	GE	MacCarthy Clan Teige Roe	Y	?	3?	N?	Y	?	?	Y	N	?
7 Dunbeacon	?	O'Mahony	N?	4	4	4	?	?	?	?	Y	?
8 Castle Salem	SRE	MacCarthy Reagh	N	>4	?	4	Y	Y	Y	N	N	SF
9 Downeen	LRE	O'Cowhig	N?	3	2	2	Y	?	?	?	N	GF
10 Glenbarrahane	GE	O'Driscoll Sliocht Taidhg	?	>4	4?	4?	Y	Y	?	Y	?	?
11 Castle Ire	?	O'Donovan	Y?	>3	?	2	?	?	Y	?	Y	SF?

**Table 1 (i)**

Summary of basic features of described tower houses

NAME	doors	clan/sept	floor division	floor number	largest floor	vaulted floor	latrine	fireplace	hours loop	gunloop	putlog grid	unit type
12 Raheen	GE?	O'Donovan Clan Cahil	Y?	5	4	4	Y	?	N	Y	N	GF
13 Glandore	GE	O'Donovan Clan Loughlin	Y?	?	?	?	?	?	?	Y	N	?
14 Dunmanus	SRE	O'Mahony	N	4	4	4	Y	N	N	N	Y	GF
15 Kilcoe	LRE	MacCarthy Clan Dermot	N	3	3	3	Y	N	Y	N	Y	GF
16 Oldcourt	SRE	O'Driscoll	N	3	2	2	Y	Y	Y	N	N	?
17 Ardintenant	LRE	O'Mahony	N	4	4	4	Y	N	N	N	Y	GF
18 Rossbrin	FRE	O'Mahony	N	5	4	4	Y	?	N	N	N	GF
19 Rincolisky	FRE	O'Driscoll	N	>3	?	3	Y	?	Y	?	Y	GF
20 Castleduff	?	O'Mahony?	?	>2	?	?	?	?	?	?	N	?
21 Dunlough	FRE	O'Mahony	N	3	3	3	N	N	Y	N	Y	?
22 Leamcon	FRE	O'Mahony	N	4	4	4	Y	N	N	N	N	?
23 Dunalong	SRE	O'Driscoll	N	>2	?	?	N	N	N	Y	N	GF
24 Cloghan	?	O'Driscoll	?	>2	?	3	?	?	?	?	N	?
25 Dunanore	GE	O'Driscoll	N	4	4	4	?	?	Y	?	N	?
26 Derrylemlary	GE	MacCarthy Crimeen	Y	4	1	N	N	?	N	Y	N	?

**Table 1 (ii)**

Summary of basic features of described tower houses

NAME	doors	clan sept	floor division	floor number	largest floor	vaulted floor	latrine	fireplace	hours loop	gunloop	putlog grid	unit type
27 Farranamanagh	LRE?	Daly	N	?	?	?	?	?	?	?	N	?
28 Ballinroher	GE	MacCarthy Crimeen	Y	4	3	N	N	Y	N	Y	N	SF
29 Kilgobbin	LRE	MacCarthy Reagh	N	5	?	2,5	?	?	Y	N	N	GF
30 Kiltrea	GE	MacCarthy Muskerry	N	5	5	3,5	Y	N*	N	Y	N	SF
31 Cloghda	GE	Mac Sweeney	Y	4	4	3	Y	Y	N	Y	N	?
32 Carriganacurra	GE	O'Leary	N	5	4	4	Y	Y	N	Y	N	?
33 O'Crowley's Castle	?	O'Crowley	N	?	?	?	?	Y	Y	?	N	?
34 Timoleague	LRE	Barry Oge	N	>4	?	?	Y	?	Y	N	N	GF
35 Monteen	LRE	MacCarthy Rabach	N	4	3	2,4	N	Y	N	N	?	SF
36 Reenavanny	LRE?	O'Sullivan Beare	N	?	?	?	Y	?	?	?	Y	SF?

Table 1 (iii)

Summary of basic features of described tower houses

## CHAPTER I: INTRODUCTION

### 1.1 Topographical description and definition of the Survey region

The Survey region (Fig.a) covers the Baronies of Carbery, Bear and the south part of the barony of Muskerry.

West Cork including West Muskerry was part of Gaelic Ireland and detached from the Lordship of Ireland until the Tudor conquest. Only the southern coastal zone was conquered by the Cambro-Normans; most of this was reconquered in 1325 by the Gaelic Irish with the exception of Barryroe and Ibane. At about the same time, East Muskerry was reconquered. Because the area of the Survey region was only partially and briefly over-run by the Cambro-Normans it differs from the areas covered in the majority of recent studies which deal with areas partially or wholly within the Lordship of Ireland where manorialisation and sub-infeudation patterns were sufficiently strongly established to survive the 'Gaelic resurgence'.

The Survey region was less remote from the Continent and the Lordship of Ireland than Ulster; some urban life existed in the eastern part of the Survey region. The small town of Rosscarbery seems to have been laid out and walled by Anglo-Norman adventurers as a Norman town; it remained the seat of the Bishop of Ross throughout the late medieval period although it was in the Gaelic Irish ambit (Nicholls 1993a, 412). Timoleague had similar origins (Coombes 1969, 16), but both settlements can claim to have pre-Norman monastic origins. By the Fifteenth Century the port towns of the southern and western coasts, including Cork, were isolated among territories ruled by Gaelicised lords (O'Brien 1993, 133-5) and effectively cut off from direct royal control.

No less than four major fold axes associated with the Armorican folding bestride the Survey region (Whittow 1978, fig.1). This has a strong effect on settlement patterns in all periods. The chief rock of the area is Old Red sandstone which is visible in frequent outcrops in the west. It is mixed with facies of slate, shale and grit; layers of softer rocks, such as the argillaceous limestones of Ringabella have been scoured out by glaciers to form valleys.

The very irregular coastline penetrates deep into the country. The complicated composition includes the steep sloped peninsular/insular world of the south-west, the wet uplands of the north-west (outside the Survey region). The area covered includes the Old Red sandstones of the western mountains and interior hill ranges with their reclaimed *podzols*, peaty gleys and climactic peats. These contrast with the drowned valleys and sheltered shaley and slaty soils of the southern coastal region (Smyth 1993, 655).

Although it enjoys a particularly mild climate, the Survey region has less than half the grass growth potential of other parts of Cork. The enormous physical effects of mountains and seas tend to cut across all discussions of geographical matters, obscuring traits that may be due to other influences.

## 1:b The medieval and modern natural environment

Given the lack of any other visible evidence it must be assumed that tower houses reflect medieval Gaelic rural settlement. Topographical and environmental factors are almost as important as historical research in studying this settlement but their exact effects must remain conjectural. These problems aside some reconstruction of the medieval environment is possible prior to studying the tower houses themselves.

The most obvious environmental difference between the Fifteenth Century and the present day is the loss of tree cover. The valley of the Bandon river was flanked with forests as late as the early Seventeenth Century (Larner 1992, 9). The extent of deforestation can be judged from events in 1602, when the English army that sacked Dunboy was forced to travel via Kinsale and Timoleague because the more direct route along the Bandon valley was choked with oak and birch (McCracken 1971, 46). To the east, many miles of continuous forest covered the valleys of the Bandon, Lee and Blackwater Rivers (Larner 1992, 9). Woodland commenced at Gouganebarra and ran continuously along the Lee valley to Cork (McCracken 1971, 47). This woodland, the Shehy mountains and the bay of Kenmare did much to isolate the Survey region from the rest of Ireland. These formidable natural barriers would have impeded the free movement of people and ideas and allows the Survey region to be treated as a separate geographic entity. The political fragmentation in Gaelic Ireland commented on by Simms (1978, 75) was very much a reflection of physical barriers 'that made a man a foreigner 30 miles from his own doorstep'.

The loss of forest had continued slowly for many centuries because even areas of Ireland such as Connemara, were once forested (Evans 1975, 82). The process accelerated in the period 1400-1700 but at the start of the Seventeenth Century, the valleys of Adrigole, Glengariff, Coomhola, Bantry and Roaring Water Bay were still forested with Sessile Oak, Birch and Arbutus (Larner 1992, 9) but much of the Survey region was already stripped bare. A comment in the *Letter Book* of General de Zubiaur who landed a Spanish force at Baltimore in the closing days of 1601 records that:

'The land is mountainous and without trees. There must be some somewhere, but they do not appear around these harbours and they are needed to make storehouses and lodgings' (Coombes & Ware 1978, 54).

The Spaniard's exasperated statement carries more weight than that of a casual tourist; in 1600 much of the coastal area resembled the landscape of today but much coastal forest probably existed in the Fifteenth Century. The Ivagha peninsula, nation of the O Mahony Fionn, was known as the 'plain of brown nuts' in the Fourteenth Century (O'Mahony 1910, 69), and here, as elsewhere in Ireland, there was a reliance on the short acorn harvest for swine (Simms 1978, 89). Early medieval legends indicate that this forest was a mixture of Oak and Hazel, e.g. '*Doire* [oak grove] *na nath* in which fair-

nuttled hazels grow' (ibid., 68). The bare hills of the Ivagha Peninsula were probably covered by a Forest Brown Earth supporting low scrubby forest and there is indirect evidence for more substantial trees (see below). This fragile ecosystem was destroyed by removal of the woodland; the soil has since washed away or degraded into an acidic *podzol*.

A vanished timber used for the central beam of the first floor of Kilcoe Castle [15] must have derived from mature woodland with straight-trunked trees over 8m tall. This implies the existence of 'primary growth' lowland forest, perhaps with pedunculate oak, although this is not known to be native to Ireland (McCracken 1971, 18). Much managed secondary woodland probably also existed in the more densely settled areas of the Survey region. The centring of the vaults, for example, reveals evidence for coppiced hazel(?) hurdles, also employed for this purpose in Tipperary (McKenna 1984, 69). 'Managed' coppiced woodland yielded hurdles and basket-materials as well as providing acorns for swine. However, some agent seems to have accelerated the destruction of woodland prior to 1602. Iron smelting and tanning were so destructive of trees in other parts of Munster (Larner 1992, 12-14) that the possibility that iron mining was carried out by the Gaelic Irish in the Survey region cannot be ruled out. In about 1586, a copper mine existed 'in Bantry' and the same source mentions a silver source in West Carbery, apparently freshly discovered (Harleian MS 286, quoted in Cowman 1988, 15). Iron mining at Roaring Water Bay and Coomhola ended in the mid-Eighteenth Century when no trees were left for fuel (ibid.).

A more generally accepted reason for the destruction of forest was a shift from arable farming to pastoralism that was the result of the Norman invasion (Simms 1978, 79). A short term result of the westward movement of Gaelic peoples may have increased pressure to open up land for pastoralism and long-fallow arable farming. The demands of tower house construction must have caused some depletion of forest, but this would have been negligible by comparison. Population increase is implied, although hard evidence is lacking.

The shortage of substantial trees may have affected the utilisation of timber in tower houses by the second half of the Sixteenth Century. While it is possible that wood was imported from other parts of Ireland in the Fifteenth Century, it would be specious to argue that this was necessarily the case. The design of some of the tower houses shows that it was used without stint for centring, scaffolds etc.; this would not be the case with an expensive import. The apparent simplification and diminution of timber elements in other tower houses could be the result of the greater rarity and expense of timber caused by deforestation.

The deforestation may have led to the silting up of several of the most important harbours in the Survey region, such as Rosscarbery, Clonakilty and Timoleague. In other respects, the coast is much as it was in medieval times. The blanket peat formation characteristic of the inland hill zone was already well established in medieval times.



Stone and lime defended towers and fortified houses, collectively known as 'tower houses' occur throughout Ireland. Constructed throughout a period of c.250 years (c.1400-1650) their geographical incidence is very uneven (Fig.a). This thesis will attempt to trace the development and changing nature of tower houses in a region covering about 3-4 per cent of the area of Ireland (Fig.b).

Grose was the first antiquary to illustrate and plan tower houses, but these were mostly examples readily accessible from Dublin. He died 'after having written only seven pages of descriptions' and Ledwich was responsible for the remainder. His text is largely historical and anecdotal and he seems to have been aware that, in architectural matters, he was very much at sea. In his introduction, he is aware of his ignorance '...particularly of the history of our castles. Imperfect as these accounts are, they will be found of some value to the Antiquary and Historian, while they open an untrodden path to future and more successful Inquirers' (ibid. iv).

Most definitions of tower houses agree in the following details (O'Callaghan 1981, 2; McKenna 1984, 5). The oblong plan of a tower is simple and readily memorised with little scope for variation. Broadly similar buildings are encountered across Ireland because structural requirements dictate much of the internal layout. The walls must be thickest at the base with few and small openings and the basement chamber is therefore dark and damp. An entrance must be at this level, usually giving onto an intramural staircase. For maximum security, the tower was normally built as tall and narrow as possible. As a result, there were three to five large chambers, one above the other. Towers are intrinsically vulnerable to fire, acting like enormous chimneys. A stone-vaulted floor is often provided to act as a fire barrier. First-floor vaults are, for example, near-universal in Meath (Abraham 1991, 248), but 'die out' in seventeenth-century Tipperary (McKenna 1984, 32). For structural reasons the masonry walls must become thinner with height which usefully allows the upper chambers to be larger. Windows, which are structurally unsound at a low level, can also be made larger with height; this is a desirable defensive attribute. Domestic occupation was generally above the stone vault. Vaults occur at almost any level, and there are sometimes two, or none, in a single tower house (ibid., 30). The roof was pitched in the Survey region and ran along the long axis of the plan. The tops of the walls were thick enough to support a roof, its gables and a wallwalk for defence. A crenellated parapet in Ireland, as in Scotland, was the prime distinguishing feature of a fortified residence (Stell 1985, 197).

The overall design constraints still permit endless variation in the detail. The division of a 'county corpus' of tower houses into groupings based on typological classification has been shown to be practical (Donnelly 1994, 137). Similar variations allow development and affinities to be traced in Co. Cork. No two tower houses were identical, but some are more similar than others in a manner that shows a strong relation to proximity. Local traditions of tower house construction can be recognised

and this thesis rediscovers the various strands of tower house development in the 'Survey region'; as well as defining traits which are more general in Ireland.

Local traditions and historical references (Chapter 6:a) place the start of tower house construction in the Survey region well within the Fifteenth Century; therefore the tower houses in the region cover a period of c.200 years. A tower house in Co. Down is dated to between 1413-41 (Jope 1966, 233) but Leask dated the first appearance of Irish tower houses to a royal statute of 1429 authorising subsidies to those men, loyal to the king, who wished to build a tower in the Pale (Leask 1951, 76). Recent research suggests that the first Irish tower houses may have been built 'well before' this date (Davin 1982, 2) but this remains a controversial topic in terms of both dates and definitions (Chapter 6:a). Elsewhere in Ireland, tower houses were built until the 1640s (Leask 1951, 90). With one possible exception, there were no new tower houses built after c.1600 in the Survey region, but early seventeenth-century examples are known to have been built elsewhere in Cork (Power 1992b, 223).

This thesis therefore covers the bulk of the period in which Irish tower houses were built. Much development can be expected to have occurred in that period. Tabraham has demonstrated in Scotland that the study of architecture can reveal how tower houses functioned (1988, 269). This thesis sets out to trace evidence of function and to conjecture the social significance of tower houses in the Survey region as 'residences of lordship'. The relation of apparent changes in function to chronology is then determined. This thesis extrapolates the social and technological preconditions necessary for their adoption in the Survey region. The place of the West Cork tower house in the overall development of Irish tower houses is dealt with as a separate topic in Chapter 6:e. The origin of the form as a topic distinct from later regionalism is discussed in Chapter 6:a.

The sheer quantity of field monuments in Ireland remains a daunting problem; Leask's classic count of all types of castles throughout Ireland was over 2,900 including many now destroyed and he is at pains to point out this is a minimum figure (1951, 153). The practical difficulties of recording floorless towers has affected even this local survey. It would require a large full-time staff several months to perform such a comprehensive survey in the Survey region, therefore this survey is reliant on the analysis of plans.

There has been a call for 'many more regional surveys' (Barry 1987, 189). The problem is what formats such surveys should adopt and how much information can they practicably hope to record, quantify and analyse. The subject has undergone a renaissance since about 1980, a process that has accelerated in the last ten years, and schools of thought have come into existence. It provides a rich quarry for thesis topics throughout Ireland (Donnelly 1994, 34). The mixed results of these surveys are dealt with in depth by Donnelly (ibid.). The author does not wish to repeat this information, but to add some complementary comments where required.

The study of tower houses seems to have begun in the late Eighteenth Century. Grose's *Antiquities*, published in 1794 (text by Ledwich), is the first extensive published treatment of castles. His introduction summarises the viewpoint of the Irish Protestant Ascendancy: the 'English or Normans' were the 'greatest blessing that Providence could bestow on this Isle' and that a 'very singular system of municipal laws excluded civilization, and perpetuated ignorance and barbarism among the natives' (ibid., xxvi).

Ledwich believed that the 'native' Irish were incapable of building stone castles. He quoted an earlier writer on Irish matters, Sir John Davies, as an authority. Davies wrote that only such Irish 'as have lately obtained estates according to the course of the law of England' (ibid., xxxvi) had an incentive to build lasting structures.

Interest in what came to be called tower houses was encouraged by the late eighteenth-century craze for picturesque landscapes and romantic ruins. This appetite drove an army of itinerant draughtsmen and engravers to record ruins 'on spec'. Their output is now an important archaeological record. 'One of the most energetic figures was Colonel William Burton Conyngham, who collected drawings and watercolours of medieval monuments and even commissioned plans. Until the 1790s, interest in antiquities was still restricted to a small circle of artists and connoisseurs, but the publication of Francis Grose's *Antiquities of Ireland* (1791-5) brought the subject to a much larger audience' (Stalley 1987, 4). Unfortunately, the areas covered in greatest detail do not include the Survey region, which is remote from Dublin.

Although it has been claimed, with justice, that Ledwich made no very perceptive comments (Cairns 1987, 3), he rightly observed that 'castles... multiplied to an incredible degree' (ibid. xxxix). He goes on to say; '...we had infinitely more of such edifices than existed in England, even in the turbulent reign of King Stephen, whose successor demolished 1115 of them'. In the eyes of Ledwich, the Irish could do nothing good, for if they built no stone castles, this was blamed on their primitive and backward condition; if they did build castles, this was due to feuds with their neighbours and the absence of the rule of law.

Surprisingly, the scholarly study of Irish castles languished throughout much of the Nineteenth Century apart from some individual reports. This was not for a lack of interest. Indeed, a romantic cult of the Irish past developed at this time. Individual tower houses were recorded to help architects get 'Gaelic' architectural detail right. The aim was to create such fantasies as Dromore Castle, Co. Limerick. The vast wealth of 'Kiltartanised' English tycoons meant that architects were empowered to 'improve' on the past. They therefore tended to regard ancient Irish buildings as a 'lucky dip' of miscellaneous architectural detail for use elsewhere. This was sometimes materially the case: the gatehouse of Lemaneagh, Co. Clare, was removed and rebuilt in the garden of Dromoland Castle (Leask 1951, 133).

The creation of the Ordnance Survey in the 1840's was, largely through the efforts of John O'Donovan, the commencement of the serious study of tower houses (Donnelly 1994, 14). The burgeoning of local historical study in the Nineteenth Century led by O'Donovan (ibid.) was also of immense importance to the subject in an indirect manner.

The term 'tower house' was originally introduced from Scotland by Parker in the 1860s (Donnelly 1994, 14). J.S. Fleming was one of the first antiquaries to make a systematic comparison of Scottish tower houses and 'Irish keeps' which he dates to a century later than their 'Scottish prototypes' (1909, 178). The term only gradually gained acceptance, first appearing in a Cork context in H.G. Leask's 1944 article about Mallow Castle (1944, 23) and subsequently in 1945 (Hartnett, 48). Much valuable work was done by antiquaries who used other terms to describe them.

The subject of Irish tower houses was never entirely neglected. As Inspector of National Monuments Leask brought together most current knowledge on the subject in his seminal book *Irish Castles* (1951). This remains the standard work (Donnelly 1994, 23) but only two tower houses in the Survey region are mentioned. Leask was responsible for popularising the term 'tower house'.

The introduction to Leask's book makes clear that the subject was 'never quite abandoned' and that their study 'is still being advanced by several workers' (Leask 1951, 3). His tone supports the general impression that the subject was steadily developing until c.1922, but went into a decline after that date.

After 1922, little work was carried out on tower houses until the 1950s. Barry states that 'Irish archaeologists have naturally tended to concentrate on the prehistoric and the Early Christian periods before the coming of the Scandinavian and later the Anglo-Norman invaders.' The new State wished 'to emphasise its own unique cultural identity free from the impact of later invaders and colonisers' (Barry 1987, 1). He comments that a more 'mature' attitude is now increasingly prevalent as scholars now accept that the idea of a 'pure' Irish culture is obscurantist: because the Celts too were once invaders and colonisers.

A new 'state' initiative originated in Northern Ireland as a result of the Preliminary Survey of the Ancient Monuments of Northern Ireland (Leask 1951, 3) and E.M. Jope's work came to fruition with the Co. Down Archaeological Survey (1966).

Ulster went against the trends elsewhere in Ireland due to the work of the Office of Public Works (later the Department of the Environment) and the energy of Jope. Study of castles went on in the context of consolidation and HMSO handbooks were published in Ulster throughout the 1950s.

While Jope was conducting his exemplary survey of Co. Down, Fahy was studying tower houses and

carrying out the excavation of Dunboy at the opposite end of Ireland, but after Leask's death very little was done other than the preparation of unpublished surveys by the Irish Office of Public Works. O'Riordain and Waterman did however excavate related types of site of the same general period.

Much amateur activity has gone on regardless, but the results are often virtually untraceable to the outside researcher. Work specifically on tower houses sometimes occurred as a result of other activities (e.g. hydroelectric schemes), and a certain amount of related work on seventeenth-century houses by Waterman (1961) is the result of an interest planted by Leask (Donnelly 1994, 26-7). The small but steady level of research on sixteenth- and seventeenth-century houses conducted in the context of the entire British Isles, took on its own life with O'Callaghan (1981: Wexford) and Craig who published a brief but useful chapter on tower houses in a book that is essentially about conventional houses (1982). Because the two types of building are intimately connected, it was inevitable that tower houses would return to favour. A folklorist, Ó Danachair, published a general article about tower houses in 1979.

The floodgates opened when Davin published a survey, essentially text-based, of the tower houses of the Pale (1982) while Cairns' short publication of the tower houses of Tipperary, based on his PhD thesis, appeared in 1987. Since then, PhD, MLitt and other theses have appeared in rapid if unpublished succession, the chief publications coming from Tom McNeill (1991, 1992, 1997), Jordan (1991) and McKenna (1984). Unpublished theses by Abrahams (1991: Meath), Neill (1984: Knockgraffon), Ní Loingsigh (1995: North Donegal) and Donnelly (1994: Limerick) are deposited at Queen's University Belfast, while Jordan's PhD thesis (1991) and McAuliffe's Kerry study (1992) are at Trinity College Dublin. Donnelly's treatment judges the relative merits of the more recent works on an Ireland-wide basis. So as to avoid repetition, the author only discusses the more recent works in relation to the Survey region and avoids more contentious issues, except to point out the degree to which the situation in the Survey region fits in with other models. Some larger conclusions are made, but the main emphasis remains with the Survey region.

[Mallory & McNeill]

The Co. Down survey has been the model for a number of County surveys in the Republic including a SMR recently published by UCC for the West Cork area (Power 1992a). The degree of detail in these surveys is far from uniform, small counties with few tower houses tend to attract a more fulsome level of detail than the surveys for large counties.

The author's interest originated in childhood trips to tower houses and grew from there. It was apparent through familiarity with West Cork that the tower houses in this area are broadly similar, although they are never identical. This similarity was apparently affected by date and geographical proximity, but it was many years before an orderly approach to the material could be developed.

Appreciation of Ireland's vernacular architecture has rapidly grown in the time of the author's

research. Interest in Irish tower houses has become positively fashionable and they are beginning to be restored by those with the means to do so. The subject is no longer the exclusive preserve of archaeologists and medieval historians. The Bord Failte appreciates these buildings as tourist attractions, and there is a growing interest in 'roots' and clan identity. Not only are tower houses being reconstructed more frequently, but state-sponsored work has greatly improved in sensitivity and accuracy (Barrys court, Ross Castle). Wanton destruction, common until the 1960s, is now rare.

## 1:d Existing research into West Cork tower houses

As a result of the general, if ill-defined, enthusiasm for the past, local historical and archaeological societies began to appear around Ireland, towards the end of the Nineteenth Century. These societies adopted a more scholarly approach in studying their regional monuments than had previously prevailed. Local pride was one spur, but there was also a new awareness of the importance of archaeological fieldwork. This is illustrated by the case of the Cork Historical and Archaeological Society, which seems to have been a particularly energetic group in its early years. Many members of the professional class of the County gave up spare time for the 'collection, preservation and diffusion of all available information regarding the past of the City and County of Cork' (Gillman 1892a, 11).

Herbert Webb Gillman, in the first volume of the *Journal of the Cork Historical and Archaeological Society* (ibid., 18) set down a 'manifesto' for the creation of an archaeological county corpus that still seems valid today. He then went on to describe, systematically, a 'typical' Cork tower house (Carrignamuck); and carried out the survey of the ground floor himself. While it is true that he was unaware of Parker's work or of the use of the term 'tower house' (Donnelly 1994, 17) he made useful observations. He pointed out, for example, that Davies was wrong in assuming that the Irish never built castles under tanist law (Gillman 1892a, 13).

For Gillman, the recording and analysis of surviving ruins was just as valid as the study of written history. He emphasised, as one aim of the new society, the construction of complete lists and descriptions of all classes of archaeological sites for the county. Systematic recording, county lists, quantification; these are all now familiar practices, but in 1892, they were highly innovative. He hoped that the systematic recording of the histories of all sites would one day be 'pieced together so as to largely contribute to and also illustrate what is still a desideratum, a continuous narrative history of the County'. He also wished for 'understanding of the types and forms to be found in our local castles' (ibid.).

Although there was an increasing amount of work being carried out on Scottish tower houses, the insights from this work only slowly filtered into the antiquarian consciousness of Ireland. Gillman seems to have been unaware of any such developments (Donnelly 1994, 17) but he pointed out that there was little in print about the castles of Cork and that Grose had mentioned only two in his *Antiquities*. He makes clear that there is nothing particularly remarkable about Carrignamuck; it was intended to be an example of publication method and he hoped that others throughout the County would imitate him. He referred to Carrignamuck as a 'keep of a late Norman pattern' (1892a, 14). This use of the term 'keep' for a tower house was typical of the time; Gillman was aware of the special nature of the buildings but lacked a useful 'catch-all' name for them, despite an article on the subject by John Henry Parker thirty-two years earlier which used the term 'tower house' (Donnelly 1994, 15).

As a result, no doubt, of Gillman's example, the study of Cork tower houses made rapid strides towards being a fully-developed discipline; descriptive and photographic surveys were made of the castles of mid-Cork (Lee 1914), while the Barony of Muskerry received attention at about the same time (Butler 1910; Gillman 1892a) but only Gillman and Butler included drawn surveys. In 1917, the castles of North-east Cork were also described (Waters 1917). Articles on Blarney (Crawford-Woods 1896), Togher [2] (Lyons & Gillman 1895), Dundanier (Gillman 1897) also appeared at about this time. Most of the tower houses in South-West Cork were eventually historically studied and photographs were published (O'Mahony 1908-10 & Coleman 1923-1927). Sometimes a few brief descriptive notes were appended to the historical narrative.

Many other mentions were and continued to be made of tower houses in the context of local historical studies, but apart from Hartnett's treatment of 'castles' in Imokilly (1945) the inventory work languished after 1922. Incidentally, the term 'tower house' in a Cork context appears for the first time in Hartnett's article (*ibid.*, 48), no doubt due to the influence of Leask.

Some of the castles along the coastline of Cork were studied by the indefatigable T.J. Westropp, who devoted himself full-time to the study of antiquities (Donnelly 1994, 17). He set out to describe all the shore forts in Ireland and was the first person to attempt a comprehensive survey of a county's tower houses, in Limerick (*ibid.*, 18). While his main interest in Co. Cork was in the earlier earthen forts, he also noted down useful details and measurements of the tower houses that occupied the same sites (Westropp 1914, 89-124, 1915, 250-83). More information no doubt exists in his unpublished notes in the library of the Royal Society of Irish Antiquaries.

Fahy's excavations and publications of Castle Inch (1957) and Dunboy (Gowan 1978) were remarkable achievements in a period of scant research on Cork tower houses.

The erratic nature of tower house studies, so dependent on the enthusiasm of individuals, is well illustrated in the Survey region. Castle Inch was recorded and excavated in an exemplary manner prior to its destruction in the Lee Hydroelectric scheme (Fahy 1957) but a complete tower house (Dromcarra) was demolished without record on the northern edge of the Survey region as recently as 1968 (Ó Murchadha 1993, 241).



## 1.e A review of the secondary sources

The author has been reliant on published sources, many compiled over a century ago, by authors whose concerns were primarily historical. It may be asked if the unpublished sources, especially those in the Irish language, would reveal much hitherto unknown information relevant to the subject. The answer must be a cautious 'no'.

Historians of Irish medieval society rely heavily on the annals and complaints before parliament (Abraham 1991, 460). The sources are chiefly relate to abnormal situations of war and upheaval caused by the Tudor reconquest. Little information survives from the period when tower houses were built. The historical accounts for the Survey region are scanty between 1300 and 1550 (Nicholls 1993b, 165). It is therefore unsurprising that there is almost nothing that throws direct light on why tower houses were built as they were, or how they were employed.

Lucas's problems in the use of Irish sources in his researches on the *creaght* vividly illustrates how deficient the sources were even to a great Irish scholar. Irish sources never give any description as it is always assumed the reader is familiar with technicalities. 'All we can do is collect such small disjointed scraps of knowledge about daily life as happen to be scattered thinly and widely over texts of all kinds and having amassed as many as possible to try and fit them together to give some kind of a picture.' (1989, 5).

Because the listener is assumed to be familiar with tower houses, Irish sources may ennumerate activities in a stronghold but never describe the stronghold's arrangements. Even the name used by the Irish for tower houses is uncertain, and direct mention of their internal arrangements is absent except in English sources. Only a single contract for the construction of a tower house is known in Ireland (McKenna 1984, 11).

English-language documentation increases steadily after c.1560 due to the government's increased assertiveness in that period. This takes a variety of forms, mostly connected with military campaigns, fiants, inquisitions, pardons and grants as well as the correspondence of the first Presidents of Munster. Ironically, the *Down Survey*, compiled to assist in the destruction of the Gaelic social order has proven to be its most detailed social record (Ó Murchadha 1994, 33). The information in this source can be extrapolated back into earlier periods, because there seems to have been relatively little change in land holdings during the period 1400-1650 (ibid.) except for the 1580's plantations which had little effect on the Survey region apart from Kinalmeaky.

To the English, the Irish system of tanistry was an aberration. It was unusual, if not suspect to write anything favourable about the native Irish and their social system. This viewpoint had its origins in the accounts of such seventeenth-century intelligence gatherers as Sir John Davies (see 1:b). The

English-speaking historians of Ireland worked from hostile letters, inquisitions, depositions, reports and campaign journals. The bias of this material was to cast a very long shadow over the study of Irish history and still tinges the subject today (Abraham 1991, 103).

During the 1830s, the Ordnance Survey commenced what was intended to be a survey of every stone building of archaeological interest in the country (Cairns 1987, 3). John O'Donovan's letters are the origin point in the serious study of tower houses (Donnelly 1994, 14); however, the field notebooks unfortunately provide few illustrations of the castles in the Survey region. The published maps are of great value, however, in recording the locations of tower houses now no longer extant (Appendix I) as well as buildings that still exist. In some instances surrounding bawns are recorded that have now vanished, albeit at a minute scale.

In the Nineteenth Century great strides were made in documentary research and written history. As Gaelic scholarship became more widespread, a more sympathetic attitude to the medieval Irish slowly emerged. Such work is exemplified by John O'Donovan's massive translation and editing of the *Annals of the Four Masters* (1848-51). Although scholars were primarily concerned with history and genealogy, this period saw the diligent publication and editing of a mass of sources, many of which remain directly pertinent to the study of tower houses.

The scholars working on documentary material in the early Twentieth Century, such as O'Mahony, heard detailed local traditions that firmly connected individual tower houses with certain chieftains. For want of better evidence, these attributions have been accepted by the author unless other evidence shows they are improbable. This folklore material has yet to be made full use of (Ó Cualaoich 1993, 919).

Little research has yet been carried out on late medieval Ireland (Abraham 1991, 102), this has been due to a lack of sources (Nicholls 1993a, 398). It was stated as recently as 1987 that '...most [tower houses in Tipperary] will never be dated [by historical means]...' (Cairns 1987, 8). Opinions about the dating of tower houses widely diverge and are even flatly contradictory (Donnelly 1994, 49); this has led to a culture of caution amongst researchers. Compared with Tipperary, the documentation of tower houses seems relatively good; which is to say that few entirely evade documentary mention. For the most part however, mentions are unusual prior to the Tudor reconquest. Much family information survives, particularly for the more important MacCarthy septs, and it is frequently possible to infer which individuals are likely to have built tower houses. Connections, where they exist, are however often traditional, rather than documented. Despite these problems, many of the later tower houses can be quite closely dated by documentary means (Chapter 5:d).

As elsewhere in Ireland (Mallory & McNeill 1991, 252) the documentary evidence for Irish society in the Survey region is limited. Only a single reference connecting an individual to the construction of

a tower house in the Survey region exists (Nicholls 1993b, 210), but in several instances, the tower houses are connected by verbal tradition (see above) with chieftains whose dates of successions and death are known from annals such as the *Annals of the Four Masters* and the *Annals of Loch Cé*.

It has been justifiably claimed (in the context of Scotland) that '... architectural behaviour is a somewhat uncertain, confused and erratic barometer of contemporary conditions' (Stell 1985, 196). This may be so, but the correct 'reading' of surviving monuments such as tower houses is well worth the effort. There is a need to channel the study of Ireland's past towards the regional and everyday rather than the stirring war-torn overall picture that has dominated the traditional presentation of Irish history. It has been commented that the study of the medieval buildings in Meath discredits historians' conventional picture of the Fourteenth and Fifteenth Centuries as unabated decline, social chaos and political upheaval (Abraham 1991, 458). These are remarkable conclusions if correct, and it therefore was deemed a useful exercise to see if this was true or false in the Survey region, or indeed if any useful insights could be gained outside the strictly architectural.

Donnelly (1994) and Abraham (1991) experimented with various techniques to try and describe the typical features of the tower houses in their respective study areas. They also attempted to model regional variations within their areas. Abraham was largely reliant on plan area as a means of distinguishing 'types' (ibid., 240) but Donnelly had a more sophisticated system based upon the sharing of common floor plans; on the basis of this information, he created a typological corpus. He then went on to define groups divided into subdivisions; this allowed many of the tower houses a place in his corpus and he then suggested that each '...subdivision represented the work of regionally based masons...' (1994, 232); this approach is easier in an area where there is a very large number of surviving tower houses to categorise.

The author has chosen a method of categorisation which has elements of both Abraham's and Donnelly's techniques. One problem of the Survey region is the relatively small number of well-preserved tower houses; this paucity means that if a series of 'typological corpus groups' was created, the majority of them would have only one tower house in them. Many of the tower houses also hybridise features in such a way that it would be misleading to assign any tower house to a single group subdivision. The method of categorising by entrance arrangement has been demonstrated as a useful 'rough and ready' way of sorting, but it is perfectly apparent that while the 'LRE' tower houses Kilcoe and Ardintenant [17] would fall into one of Donnelly's 'shared mason group' subdivisions Timoleague [34]'s inclusion in this group is almost certainly no more than a coincidence, and no 'mason' link is to be inferred between this tower house and the other two. In the same way, the fifteenth-century 'GE' tower house at Kilcrea [30] is in almost every other respect an 'RE' tower house with a ground entrance. It is therefore better to maintain a more flexible approach, using statistical methods as pointers to, rather than conclusive evidence of relationships.

The density of tower houses in Cork is about average for Ireland. In Limerick there are as many as 0.38 tower houses per square mile, in Kilkenny there are 0.245, Tipperary has 0.154, the really poor

counties average 0.012 but Cork has 0.112 (Craig 1982, 95-6).

The Regional survey deals with a smaller group (36 complete or partially surviving tower houses) than Donnelly dealt with in Limerick; this allows a detailed treatment of such factors as plan-proportion, wall-thickness and chamber size. This is important because dimensions can be used for comparative analysis.

Although deliberate destruction of tower houses is now unusual, significant collapses have occurred at Rossbrin [18] and Dunlough [21] over the past twenty years, while minor vandalism is universal. One side of an embrasure was robbed for stone at Carriganass [1] between the author's first and second visits in 1989 and 1992. The Office of Public Works in their recent sponsorship of expensive reconstruction work at Ross Castle, Killarney and Barryscourt Castle, Middleton, have shown an enlightened attitude towards the tower houses and it can only be hoped that this flowering of interest will discourage further destruction. Fascinating though the conservation aspect is, it can only be touched on here (Chapter 6:f). This thesis does however provide a 'database' of the tower house 'resource' in the Survey region which may come in useful to others apart from researchers.

Publications on the subject of Irish castles have tended to select very important sites from all over Ireland; it is impossible to deal with regional variation in such books. Westropp was the first to recognise the value of regional surveys because they allowed undated structures to be dated by features also found in documented buildings (Donnelly 1994, 19). The regional survey aims to trace typologies where they exist by such comparative methods. Donnelly has noted a geographical correspondence with layout type (1994, 137) and the author has similarly aimed to determine whether the tower houses in the Survey region could be sorted geographically and over time by a single feature, the type of entrance layout.

To gain a complete overview of the region, it was necessary to visit and record all tower houses of which remains survive (Fig.b). Fragmentary remains and even mere sites can still preserve some useful information. In two instances destroyed tower houses are known of through earlier records but the emphasis of study has been on those tower houses for which no published survey exists. The data in the appendix attempts to create as uniform a format as possible for the purposes of comparison. The decision has been made to concentrate on the presentation of plans. This is because plans relate more directly to the layout and function of tower houses than elevations and sections, and are relatively easy to survey single-handedly. Inaccessible floors are recorded as sketch plans.

This survey does not include comprehensive measured surveys of all sites as the emphasis is on those buildings of which significant amounts remain. The opportunities for complete surveys were few; only 15 tower houses of the 80-odd that may have existed in the Survey region are substantially

complete (losses being restricted to gables, parapets and window dressings) while c. 75 per cent exists of another three. The bottom half of the tower survives in another six instances while four have lost entire sides but stand to their full height (Fig.b). There are 27 complete ground plans to compare (including two published examples) and the comparison of ground plans figures highly in those parts of the thesis which deal with typology. As there are relatively few opportunities to compare complete tower houses it is necessary to compare different parts or characteristics of the tower houses as and where they survive. The type of entrance has been selected as a framework for the thesis as it has a good survival rate. The measured surveys allowed direct comparison of dimensional data, such as wall thickness, room sizes, plan sizes, proportions, internal layouts, etc. This sort of information can, up to a point, be expressed in diagrams and tables. Mathematical geographical modelling is outside the scope of this thesis, which is not to decry its usefulness (6:b).

The breaking down of each tower house into its individual attributes may imitate the original thought-processes of the builders. There is reason to suppose that they planned each tower house as an assemblage of tried and tested 'features'. This approach of isolating details is similar to that involved in the study of jewellery and other artifacts. It has the advantage that nothing was varied without good cause.

Such factors as masonry style and technique have played an important role in the process of comparison. Similar construction techniques are taken to indicate the contemporaneity or otherwise of several tower houses, where other evidence is lacking. Standards of masonry can decline as well as improve and the absolute chronology has to be established by other means.

Technical solutions to such problems as the lintelling or arching of window embrasures seem to have changed with fashion; the exact recurrence of a particular version of a complex and protean feature (such as a gable-supporting corbel table) can be taken as strong evidence of the near-contemporaneity of two tower houses.

The absence of clear developmental sequences in layout between tower houses is taken to indicate the absence of a localised building tradition and the importing of masons. This tendency too may also be indicative of social conditions and its recognition is just as valuable as that of a smooth typological 'evolution'.

The military role of the tower houses of South-West Cork and how this changed over two centuries is discussed in this thesis (Chapter 6:b), but the emphasis is shifted away from the 'castle studies' field to also deal with the social role of these buildings and the function they had in an agricultural/pastoral economy.

Disorder is still routinely cited as the normal state of Gaelic society (Nicholls 1993a, 411) such a state

being equated with a lack of firm central control. This orthodoxy is being widely challenged through the direct study of architectural remains (Abraham 1994, 458; Donnelly 1994, 74; Ní Loingsigh 1995, 142). A new picture of a relatively stable Gaelic society is now being painted; to what extent is this borne out by evidence from the Survey region? Until castles were built, surplus wealth had generally been expended on feasting and poetry (Simms 1978, 93). Tower houses may have been the harbinger of a grimmer and more militarised society, a point this thesis will explore.

The objective study of architecture is in line with a new school of historical thinking which has sought to downplay the importance of ethnic distinction to emphasise continuity. A thread of continuity is now seen to run through Ireland's architectural tradition (McCullough & Mulvin 1986) because wealth and landowning cut across religious and ethnic divides (Simms 1978, 93). This convergence and mingling of cultures is illuminated by the tower houses of South-West Cork. The relationship between the final tower houses and the earliest 'big houses' is therefore discussed.

For convenience, the most common anglicised spelling of a tower house name is used, except where no conversion exists. For purposes of space, tower houses are referred to by their townland name, or (where it survives) their personal name, i.e. Kilcoe not Kilcoe Castle, Dunanore not Ballyieragh North or Dunanore Castle. Sometimes the name preserves a reversal of nouns, i.e. Castle Donovan preserves the Gaelic word order *Caislen an Dhonnobhain* and the two words are given.

The following abbreviations are used to indicate entrance layout:

- RE     = (all) raised entrance tower houses
- LRE   = lateral raised entrance tower houses
- FRE   = frontal raised entrance tower houses
- SRE   = staggered raised entrance tower houses
- GE     = (all) ground entrance tower houses
- UVGE = unvaulted ground entrance tower houses
- VGE   = vaulted ground entrance tower houses

In line with McNeill's preferences (1997) the term 'principal chamber' is used here rather than 'hall' to avoid confusion with independent ground-floor halls. Floors above the principal chamber are described here as 'solars' for convenience, but direct analogy with British solars would be misleading. It was invariably the largest chamber in the RE tower house and is easily recognised by its large windows and barrel vaulted floor.

In this thesis the author follows the definition of 'medieval' favoured in the context of Irish settlement studies as the period between 1169 and c.1660 (Barrett & Graham 1975, 33).

The spelling of proper names varies over the centuries, e.g. the name Finín, Finin, Finghin, Fineen, Fynyne. The author has chosen common versions which seem appropriate following the examples of others who probably know better. Less common Irish names are usually italicised.

Numerous Irish enclosed settlements are called 'ringforts' and although many may never have served a military role, the term is convenient here, if not completely correct (Limbert 1996, 243). The term 'promontory fort' is used here as a neutral term based on topographical rather than chronological classification (ibid., 253).



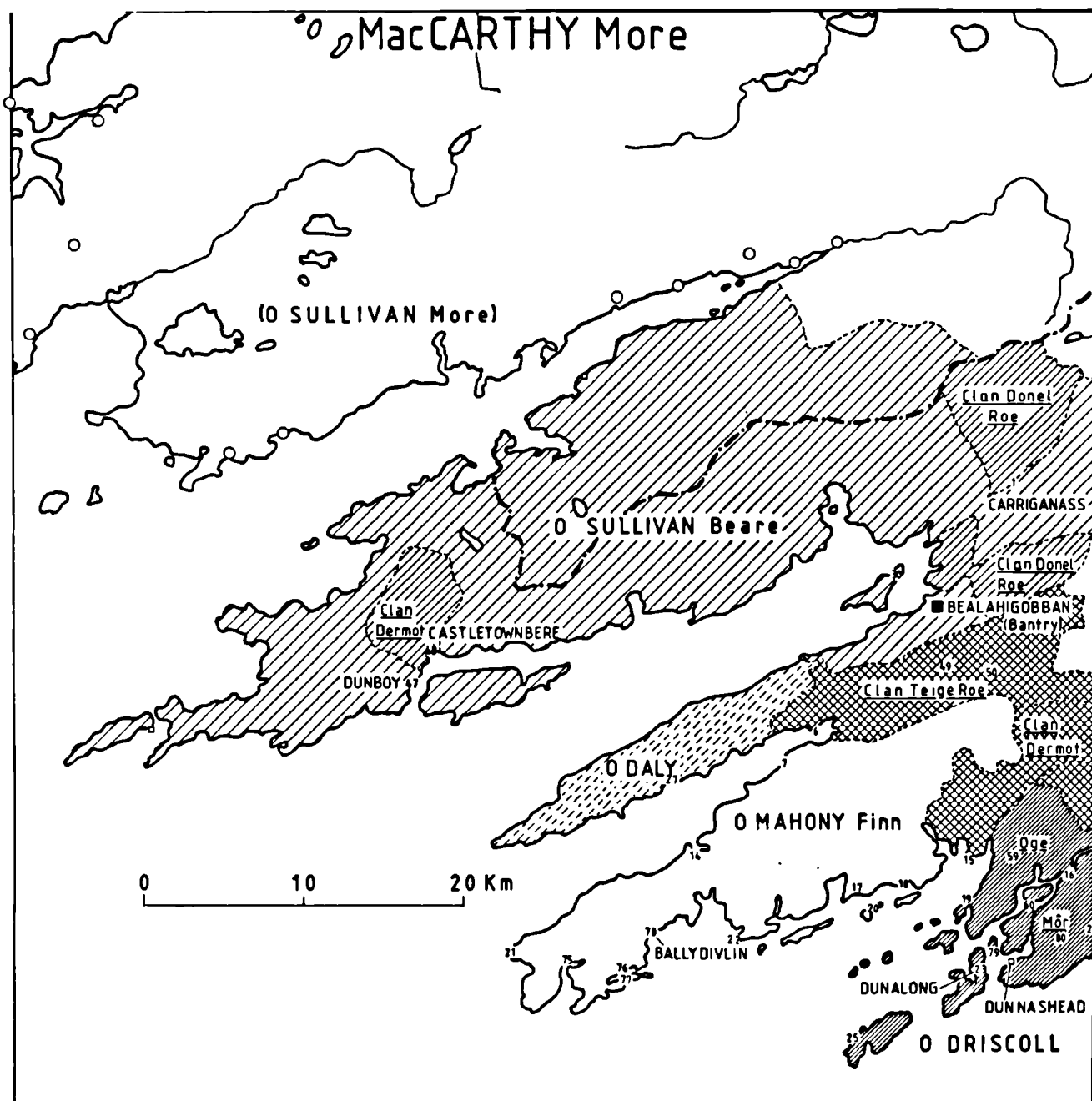


Figure c (i)

Political map of West Cork, c. 1570

(after W.F.T. Butler 1910 & K. Nicholls 1993b)



## CHAPTER 2: 14TH-17TH CENTURY HISTORICAL OVERVIEW

### 2.2 Gaelic social organisation, the Lordship and the Church

Some of the more important concepts relating to land ownership must be briefly related, in order to understand the society in the Survey region. Land was owned corporatively by agnatic descent groups called clans, members being descended from a common male ancestor. The clan was a corporate entity with political and legal functions, particularly relating to land, but it also had responsibility for the conduct of its members. In each lordship, election to the chieftaincy lay solely in the *derbfine* of the ruling clan. The *derbfine* was not a family in the modern sense, and though it might close ranks in exceptional circumstances, such as the murder of one of its members, internal dissension between cousins was quite normal (Ellis 1985, 40). Candidates for chieftaincy, legitimate or illegitimate, had to descend from a common male ancestor in four generations. The lack of stigma attached to illegitimacy and the ease of remarriage meant that the *derbfine* was continually expanding. This could only be accommodated by coercing other weaker land-owning clans or collateral septs out of their lands. This was normally done by organised raids on their stock and dependents: the defeated chief would have to agree to whatever exactions were demanded. If they could not meet them, they could be removed from their land or (more probably) become landless *churls*. Relatives of the chieftain could then take over the ownership of the land. The Irish 'mortgage', in which the mortgagee took possession of the land until the mortgagor repaid the sum, was another means of driving weaker chieftains off their land (Nicholls 1993a, 433) as every precaution was taken to make the mortgage non-redeemable. The split-off newly established *septs* were a source of weakness to the ruling house (*ibid.*, 425) and frequently came to act as a *de facto* clan in their own right.

Direct control and administration of territory was not the usual means of expanding power; more important was a chieftain's ability to force outlying clans to pay him tribute. The ownership of land was useless without people to work it. The traditional view is that stability depended almost entirely on the naked power of individual chieftains; each death and succession was therefore an opportunity for upheaval and the settling of scores. However annalistic sources are biased in favour of dramatic events; it has recently been commented that the Gaelic lordships of the region were remarkably stable (Nicholls 1993b, 157). This stability was not just restricted to Cork; the apparent stability in northern Donegal (Ní Loingsigh 1995, 142) and Meath (Abraham 1994, 450) highlights a disagreement in this period between the sources and the surviving material evidence.

By 1400 the clans can be regarded as an elite class of administrators/exploiters over the much more ethnically diverse population who actually worked the land. No area in the Survey region was exclusively occupied by members of a single sept or even clan; fiants and pardons provide glimpses of the very mixed composition of the population of certain areas in the Survey region at the end of the

Sixteenth Century. The vast majority of the Gaelic population was landless and unarmed. Although the economic position of these 'churls' was particularly weak, they could migrate freely and did not form a stable population settled on the land (Ellis 1985, 44). Their bad position can be overstated; even the weakest members of society could, in principal, call upon the protection of their overlord in the face of slights by other lords.

The population in the Survey region was divided into five major clans (Fig.c); each clan was in its turn divided into septs distinguished by common male ancestors (see above). Clanlands were reapportioned on the death of each chieftain. This could occur peaceably but new splits tended to occur every two or three generations, each new family or sept taking the name of the male ancestor. At the same time, the co-heirs (all male issue of the father) would make a new permanent partition of the lands, favouring themselves, their relatives and favourites. Women could not inherit. In Munster the partition of the lands was made by the most senior clan member who could take the best portion for himself (Nicholls 1993a, 432). This meant that chieftains and their lineages in the Survey region could become *de facto* landlords, a process which can be called 'modified tanistry'.

The traditional complex hierarchy of lordships, overlordships, and 'over-overlordships' was further complicated by the special status of churchlands and land held by *ollamhs*. The MacCarthy Reagh chieftain claimed overlordship of the whole of West Carbery, this consisted of sanctioning successions and exacting tribute; this tribute was probably not readily exacted from outlying clans. The Lord President of Munster, Sir George Carew wrote (in 1599) that:

'O'Mahon's country doeth follow the ancient tanist law of Ireland; and unto whom MacCarthy [Reagh] shall give a white rod, he is O'Mahon, or lord of the country; but the giving of the rod avails nothing except that he be chosen by the followers, not yet the election without the rod'. (MacCarthy Glas 1867, 12).

(The term 'lord' is used here in the broadest sense as a useful shorthand term for the head of an aristocratic lineage, rather than in its strict legal sense.)

The seventeenth-century tower house estates recorded in the Down Survey originated as clanlands inviolably attached to the tower house. These were allocated to the occupant for the duration of their tenure and no longer. In the later Sixteenth and early Seventeenth Centuries litigation was however discovered as a weapon to oppose the customary share-out of septlands (Ó Murchadha 1993, 224).

The burden of 'coign and livery' exactions varied considerably over Ireland, but were usually heavier in border areas where lordships were generally fragmented and militarised (Ellis, 1985, 42). Although much of the Survey region was technically a border area, the Lordship of Ireland was too weak to attempt more than diplomacy in this part of Ireland until the Tudor reconquest. The hibernicised

Anglo- and Cambro-Norman families in and beyond the eastern part of the Survey region were, to all intents and purposes, competing clans, fighting, intermarrying and building tower houses in much the same way as in the 'Gaelic areas'.

Wealth was measured in a chieftain's capacity to exact 'coign and livery' or resources in kind. These resources were to deal with immediate needs only. For much of the period under review (1400-1650), the Irish did not use coin except for the purchase of imported luxuries (Simms 1978, 67); later in the Sixteenth Century the Irish began to go over to the use of coin in everyday transactions (Dolley 1993, 825). 'Coign and livery' was imposed on the general population by the chieftain as he moved freely about his lands during the 'coshering season' exacting food and hospitality according to exactly prescribed amounts (Simms 1978, 79). The various Butler branches imposed forced labour on the population for the purposes of castle building (Neill 1984, 79) but it is not known if this was done in the Survey region.

The ancient practice of cattle raiding had died out in West Cork by the mid-Fifteenth Century (O'Mahony 1910, 9) except as a high class 'sport' of the Desmonds. However, at least one disputed succession occurred in the heart of the Survey region as late as 1560. The outcome of this was the destruction or capture of two tower houses, the death of the head of the collateral branch and most of his followers, and the expulsion of the remainder (Cronelly 1864, 260). It would be more accurate to describe the normal situation in West Cork as an 'impasse' rather than a haven of tranquillity. Such exchanges of, or destruction of, tower houses seem to have been highly unusual and demanded a quite different sort of warfare to the mere raid. A high level of intermarriage between clans is witnessed by various genealogies that survive in Lambeth Palace library, and hostility seems to have resolved entirely around power, rather than ethnic hatreds.

The disintegration of the old order was in part a product of the attractions of the common law principle to landholders (Ó Murchadha 1994, 41) and it has been suggested that the expenditure on tower houses would naturally encourage the owner to ensure it passed to a person of their choice who was not necessarily their tanist (Ó Murchadha 1993, 221).

The only other significant patron of building in the Survey region was the church. The parochial system was only gradually accepted in the Gaelic regions. This process was particularly delayed in the western dioceses (Nicholls 1971, 62). Very little is known of this process in the Gaelic regions, but some parishes may not have formed until very late indeed. An intermediate stage of formation seems to have been one parish to each clan territory (*ibid.*, 61). Inchigeelagh does not appear in the Papal records until 1479 (Ó Murchadha 1993, 216). Some parishes undoubtedly existed in 1199 in the Ivagha peninsula, and may have been sub-divided later. As in the conquered lands of Connacht (Nicholls 1971, 61) the details have to be purely speculative. It must have become apparent to the bishops that the huge tracts of these first rectories were overstretched for the cure of souls, and they

therefore attempted to sub-divide them. It is not known when the system of sinecure rector and serving vicar became established in the region but when records first appear in the Fifteenth Century, it was the norm in West Cork (ibid. 84). The rector would be normally be a kinsman or household clerk of the lord, who would wish to retain control of the benefice for this act of patronage. Several parochial vicarages could be established in the boundaries of an undivided rectory without affecting the right of the rector.

Despite the piecemeal development of parishes, the existing churches in the Survey region are remarkably uniform, they were simple barn-like structures, with tall gables at either end; the freestone dressings of high quality where they survive. There are usually only two windows, both in the chancel. A large eastern loop lights the east end, while a shorter loop pierces the south wall of the chancel to illuminate the *piscina*. The openings have ogival or trefoiled heads. The doorway is in the south wall near to the chancel window. The unlit nave is featureless and there is no division between the chancel and nave, although a timber *pulpitum* may have existed.

The only monastic foundations in the late medieval period were friaries. The importance of such holy sites as the Franciscan House of Timoleague can be judged from the number of chieftains, of all clans, who chose to be buried there. As late as 1629, the elderly chieftain of the O'Donovans stipulated that he should be buried at the abbey (O'Donovan 1851, 2446) some 40km from his home at Raheen [12] (Fig.b). This remarkable degree of patronage by Gaelic lords engendered a second wave of foundations distinct from the urban and Anglo-Norman impetus behind the initial spread (Nicholls 1993a, 438). In the mid-Fifteenth Century, friaries were established at Bantry and Sherkin Island, while Timoleague seems to have been refounded as a Franciscan house.

## 2.b Major events in the Survey region 1260-1660

The Survey region had been invaded during the Twelfth Century by Anglo- and Cambro-Norman families such as the Barrys, Courceys and Carews who had built a series of coastal castles and acquired estates. However in 1261 they were defeated by an Irish force at Callan Glen (Kingston 1985, 13) and subsequently their castles were largely captured and destroyed by Irish forces. Fighting between the Irish and the Normans continued intermittently but in 1395 Tadhg MacCarthy, the last King of Cork, made submission to Richard II (*ibid.*, 13) and dropped his title, becoming MacCarthy More. The thirteenth-century reassertion of Gaelic power marked a diminished role for the English in the Survey region which was not considered part of the 'land of the peace' by the English (Curtis 1936, 113), where the 1366 Statutes of Kilkenny could be enforced. There were still English lords with estates in the area and intermarriage with the Irish was very common (Kingston 1985, 21), as no doubt were other practices forbidden by the Statutes of Kilkenny (Curtis 1936, 112).

The influence of the English Crown in Cork waned throughout the Fourteenth Century (O'Brien 1993, 116-7) due to its involvement with the French wars and then the onset of the Wars of the Roses. With the decline in power of local Norman families such as the Courceys there was pressure to gain their land in eastern Carbery, which contributed to the turbulence of the period. The power vacuum in Ireland was to some extent filled by granting greater authority to local magnates, such as the Earls of Desmond and Ormond and grants were made to them in the last years of the Fourteenth Century which gave them 'what was in reality regalian power' (*ibid.*) and enabled them to impose greater stability.

In the early Fifteenth Century Royal Justices were appointed for Munster but they were unlikely to have been effective except in the ports (Nicholls 1993b, 162). The greatest power in Munster was the Earl of Desmond, his estates were chiefly in Kerry, but included some lands in the Survey region. Desmond claimed overlordship over the MacCarthy Reagh to whom he was also related by marriage. The Crown used the Desmonds again to fill the political vacuum and to suppress turbulence when in 1443 James, sixth Earl of Desmond was appointed to govern Cork, Waterford, Limerick and Kerry (O'Brien 1993, *ibid.*).

The falling out between the MacCarthy septs of Muskerry and MacCarthy Reagh as they expanded their power eastwards to Cork City was another indirect result of the power vacuum that existed. This power struggle was sparked off by the death of Dermot a'Duna MacCarthy in 1467 (Appendix 3: MacCarthy Reagh) which 'wrought great devastation throughout Munster' (Ó Murchadha 1986, 53). At roughly the same time there was a struggle for the Earldom of Desmond in 1469-70, in which the MacCarthy Reaghs also became embroiled, making the period one of great upheaval.

Henry VII's reign started in some uncertainty, and was marked by struggles with the governor of

Ireland, the Earl of Kildare. Henry's desire to establish independent links in Ireland led him to give concessions to the new Earl of Desmond and to 'grant charters of English liberty to two of the more anglophile Gaelic chiefs, Cormac MacCarthy of Muskerry and Florence MacCarthy of Carbery [Reagh].' (Ellis 1985, 70). In 1487 Kildare's brother Thomas Fitzgerald supported the pretender, Lambert Simnel. In 1491, another pretender, Perkin Warbeck landed at Cork, and 'received widespread support in Munster' (ibid., 72), this rebellion culminated in his execution in 1499, with the former Mayor of Cork, John Waters alongside him. This unrest prompted the Crown to enact legislation to ensure stronger English controls over the country. However on the whole, Munster was 'too distant for Dublin to attempt more than a general supervision of its affairs' (ibid., 91)

When Henry VIII ascended the throne, the English King was traditionally regarded as 'Lord' of Ireland, implying feudal suzerainty, rather than King of Ireland, a title which he claimed in 1541 (ibid., 113). During his reign there was a proposal to put the English and Irish landowners on an equal footing, giving the Irish clan chieftains absolute title to their lands in exchange for the surrender of their titles and rights under Gaelic law. This would have established hereditary succession and was a precursor of the later policy of surrender and regrant (ibid., 137-8) however, this policy was suspended in 1543.

During much of the Sixteenth Century the English Crown's authority and legal system in the Survey region was chiefly exercised within the walled towns. In 1569 Elizabeth I introduced two Provincial Councils for Munster and Connacht which aimed to reduce the power of local lords by questioning the legality of their demands for dues and services (MacCarthy-Morrogh 1986, 2). The first President of Munster, Sir John Perrot, worked hard to end the semi-independence of the lords of Munster and, as the greatest magnate in the West of Ireland, the Earl of Desmond had most to lose. He had allies and supporters both at court and amongst English officials in Ireland but increasingly his power was regarded as 'an obstacle to good order' (ibid.).

While Desmond resented attempts to curtail his power, the actual cause of the Desmond Rebellion is obscure (ibid., 3) but he committed himself to rebellion in 1579 and was attainted; the rebellion continued until 1583. The fighting that dragged on for three years after the landing of the Spaniards at Smerwick was supposed to have 'laid waste' all Munster by 1583 (Beckett 1966, 54). Although the degree of destruction may be exaggerated, traditional patterns of settlement and agriculture were probably disrupted.

The Munster Peace of 1583 led to a period of stability, in which the government power steadily expanded (ibid., 58). A policy of pardons was adopted, however it suited the government's purpose to treat tribute-payers as Desmond's tenants so that their land could also be confiscated. The area of West Carbery was affected because its overlord, the MacCarthy Reagh, was treated as a tenant of Desmond.



Five seigneuries were carved out of the escheated land in the Survey region, these were: Rossbrin [18], Cloghan (Lissangle), Dunbeacon [7], Gleanacroim (around Togher [2]) and Kinalmeaky on the Bandon River. The lands within Carbery were retained by the MacCarthy Reagh but much of the rest was handed over to English 'undertakers', who undertook to find planters to farm the land.

At the same time the title of almost all Irish landowners became insecure; the commission set up to deal with complaints about the nature of the escheated lands eventually moved towards a position of treating tanistry as illegal. Many Irish landowners accepted the system of 'surrender and re-grant' which gave them title to their lands to pass to their heirs in exchange for the renunciation of their traditional rights. Irish overlordship was no longer recognised. At the same time anyone who had paid any form of tribute to Desmond was treated as living on 'chargeable lands'. The change in traditional patterns of landholding and the influx of English Protestant planters to the lands formerly held by Desmond and his followers as a result of his rebellion was to change local society irrevocably.

The peace was not long-lasting, and in 1594 the Nine Years War broke out in Ulster. This revolt, led by Hugh O'Neill, Earl of Tyrone, eventually spread to Munster after the Irish victory at the Yellow Ford in 1598. The 'official' cause was a desire for less English authority, greater autonomy and freedom of religion (MacCarthy-Morrogh 1986, 134). A number of leading families in the Survey region then went into rebellion and a general insurrection in Munster began which aimed to expel the English settlers from Cork.

In 1600 Sir George Carew became Lord President of Munster and began to win campaigns. Carew's policy of pardons worked well in that it induced some hesitation and probable division amongst the Irish aristocracy when the Spaniards landed at Kinsale, in October 1601. A second Spanish landing at Castlehaven strengthened resistance for a while, but by 1602 the rebellion in Munster was largely over, except for a few outposts. By February 1602 when Kilcoe [15] was captured the rebellion was a lost cause. After the capture of Dunboy [47], the remaining castles in Carbery quickly surrendered to Captain Roger Harvy. A number of the MacCarthys and O'Driscolls who had been involved emigrated to Spain and France.

After the defeat of the Irish Carew was determined to repopulate the plantation lands (MacCarthy-Morrogh 1986, 137) despite the poor record of the undertakers, many of whom had fled in 1598 (ibid., 139). In any case, further territorial losses were suffered by the Irish through the private enterprise of 'Old English' and 'New English' planters such as Sir Walter Coppinger and Sir William Hull. Irish landlords in South-West Cork had been impoverished by events, witnessed by the number of mortgages raised not long after 1602. The Irish custom of mortgages allowed the lender to take possession of the land (ibid., 153), with the result that many old and new English such as Sir Walter Coppinger and Richard Boyle, later Earl of Cork acquired a great deal of land in this way, although establishing the original ownership was not always straightforward.

The Munster plantation was firmly re-established and was confirmed by the Dublin Parliament of 1613-15 (Curtis 1936, 236). A number of English settlements, such as Baltimore, Whiddy Island, Castlehaven and Crookhaven, were established in the Survey region in the early Seventeenth Century. Fishing, piracy and freedom of religion seemed to be the main attractions (MacCarthy-Morrogh, 1986, 151). Old and new English such as the Coppingers, the Bechers and Sir William Hull took over the lands and many of the money-making activities such as fishing, which the clans had previously had.

Further decline of leading Irish families as well as some of the 'old' English was brought about through religious intolerance. James I wished to prevent Catholics holding official posts such as sheriffs and justices and although he was to an extent ignored by his ministers, Catholic families were gradually excluded from positions of authority, these roles being taken by Protestant settlers (ibid., 269-271). Fines could be levied on recusants, however these were seldom enforced, merely existing as a threat at this period (Curtis 1936, 236).

During the reign of Charles I the king attempted to raise money in Ireland by offering Catholics certain concessions, 'the Graces' which included the right to practice as lawyers and, more importantly giving landowners an absolute title to any lands they held whose title had been good for sixty years or more. The £120,000 required by the king was paid, but the Graces were never legalised, due probably to the heavy Puritan domination of the English parliament (ibid., 238).

Further dissatisfaction with English rule came with the appointment of two anti-Papist Lord Justices, Borlase and Parsons; they prorogued Parliament in August 1641, stopping the bill for the grant of the Graces. The rebellion began when a number of leading Catholics entered a plot to seize Dublin Castle in October 1641, this failed but Leinster was up in arms and in Ulster thousands of the planters were massacred (ibid., 243-4). While the English Parliament voted to suppress the rebellion domestic affairs prevented them taking much action as the English Civil War broke out in August 1642.

The Irish rebellion gained victories throughout the country, Cork was the last Irish county to rise and *Tadhg an dúna*, the MacCarthy Gleannacroim chieftain was second in command of the Carbery 'rising out'. However by September 1642 a temporary truce allowed the English to hold the county as far as Bandon and Timoleague. In July 1647, the Earl of Ormond surrendered Dublin to the Parliamentary forces, giving them a port of entry into Ireland, from where they launched their campaign, Cromwell himself arrived in August 1649 (ibid., 251). There is a tradition that he visited the Survey region (Kingston 1985, 63), but it seems unlikely. Many of the major Irish clans and Old English settlers such as the Coppingers were involved in the rebellion and had their lands confiscated.

The confiscations ordered by Cromwell were very thorough, ranging from 3-acre plots to estates of 100,000 acres (ibid., 65). Forfeited lands were granted to the officers and men of Cromwell's army,

and the demand for land was such that in 1653 Cromwell's Act of Satisfaction ordered certain Irish gentry and landowners to be 'transplanted' to Clare and Connacht, leaving the remainder of Ireland available for allocation to his army. Those Irish who were not landowners remained *in situ* to be employed as labourers (Curtis 1936, 253). Despite hopes that the Restoration of Charles II would restore land and property to their former owners, the majority of Cromwell's land grants were confirmed by his 1662 Act of Settlement (Kingston 1985, 65). Only 'Innocent Papists' who had had no connection with the 1641 uprising were given a right to apply for the return of their lands. Even those who had served with Charles in exile found it hard to get their lands restored (ibid., 67).

The result of these confiscations and the relatively few 'Innocent Papists' who had managed to regain their lands meant that in less than a century the land ownership in the Survey region had largely passed out of the hands of the clans (Fig.c); no MacCarthy held land in Carbery in 1666 (ibid.). A few families held small estates, Donogh O'Driscoll held Dunanore [25] (ibid., 68) but by and large the Survey region was now in the hands of planters, self-made magnates such as the Earl of Cork and former Cromwellian soldiers such as Colonel Townsend while the Irish had neither land nor influence.



**Plate A**

The raised entrance at Ardintenant



**Plate B**  
Ardintenant's stair





**Plate C**

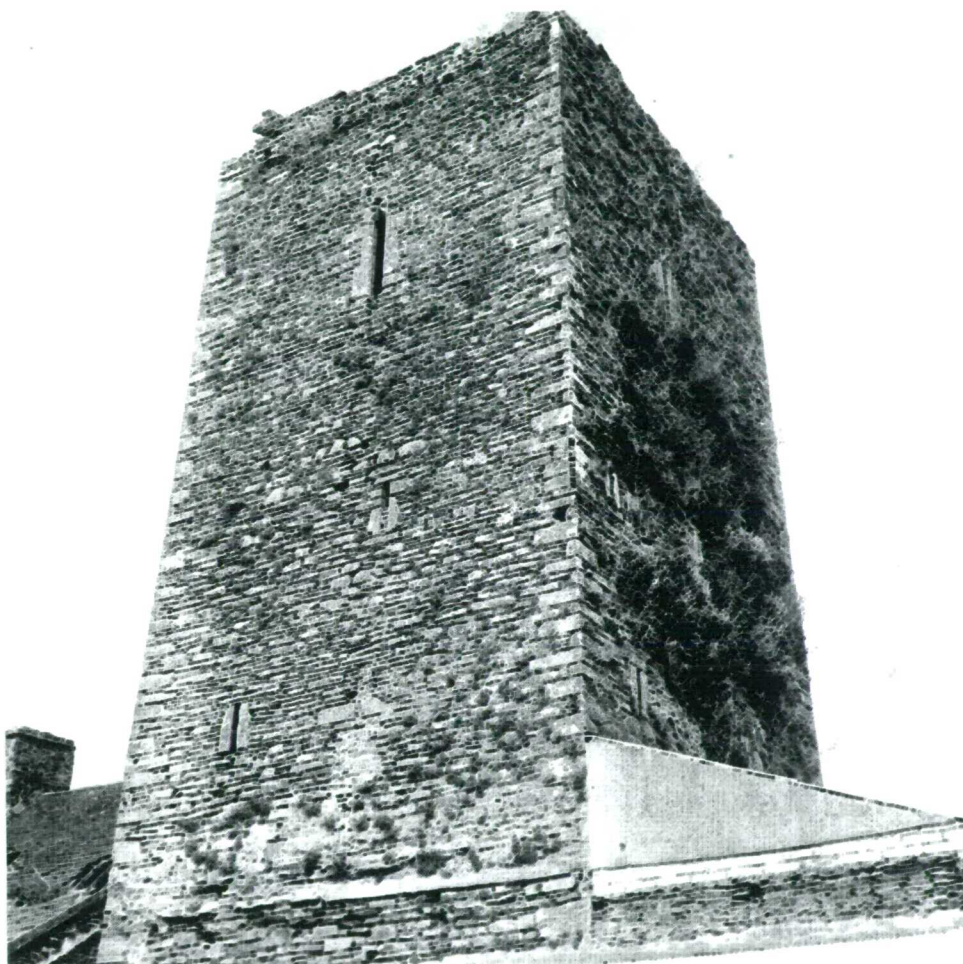
'Staggered entrance' at Oldcourt



**Plate D**

'Interrupted' vault at Oldcourt





**Plate E**

Hoarding sockets, bow loops and corner loops at Kilgobbin





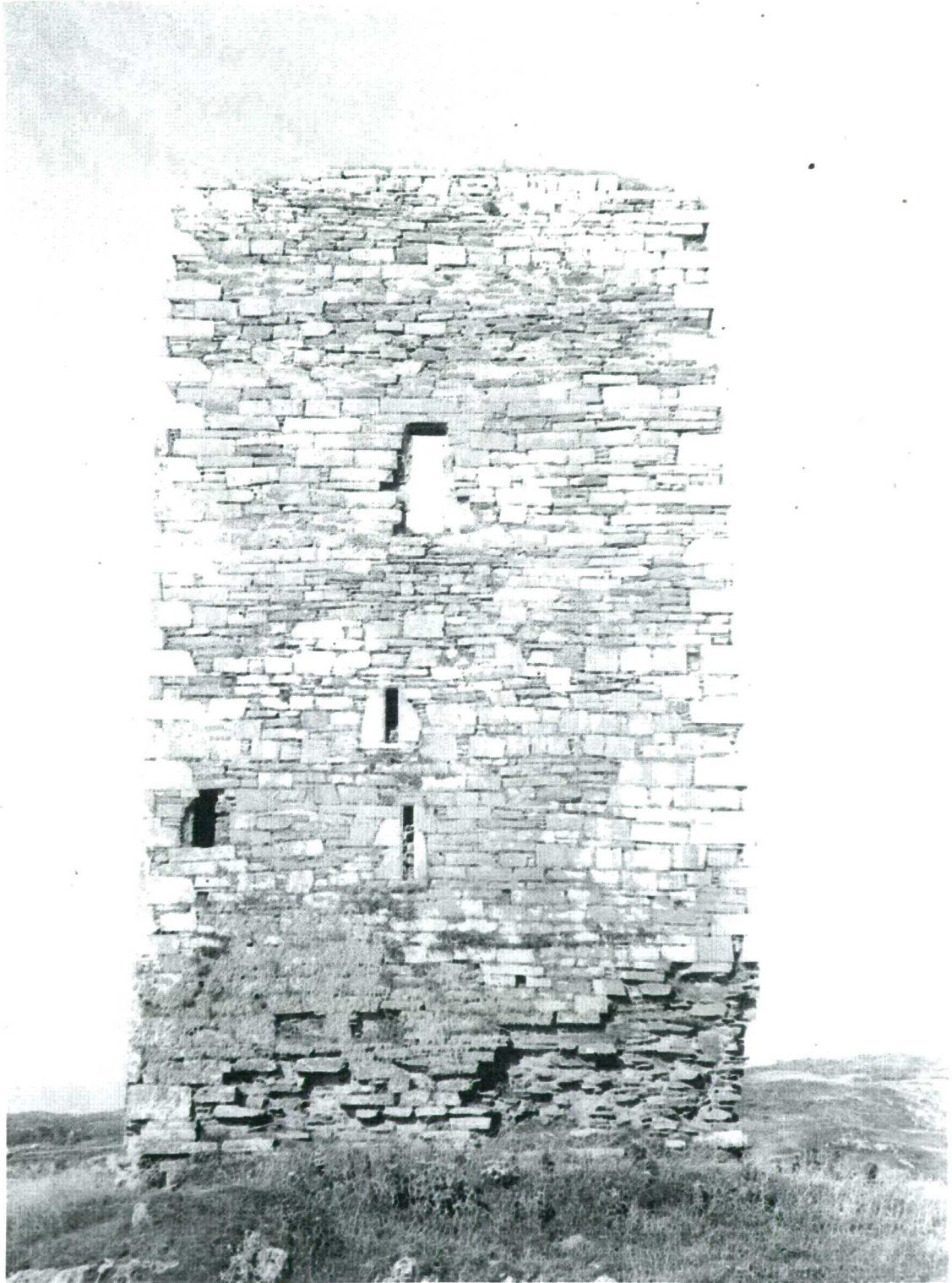
**Plate F**  
Kilcoe: quarrying



**Plate G**

Varying masonry techniques at Dunlough





**Plate H**

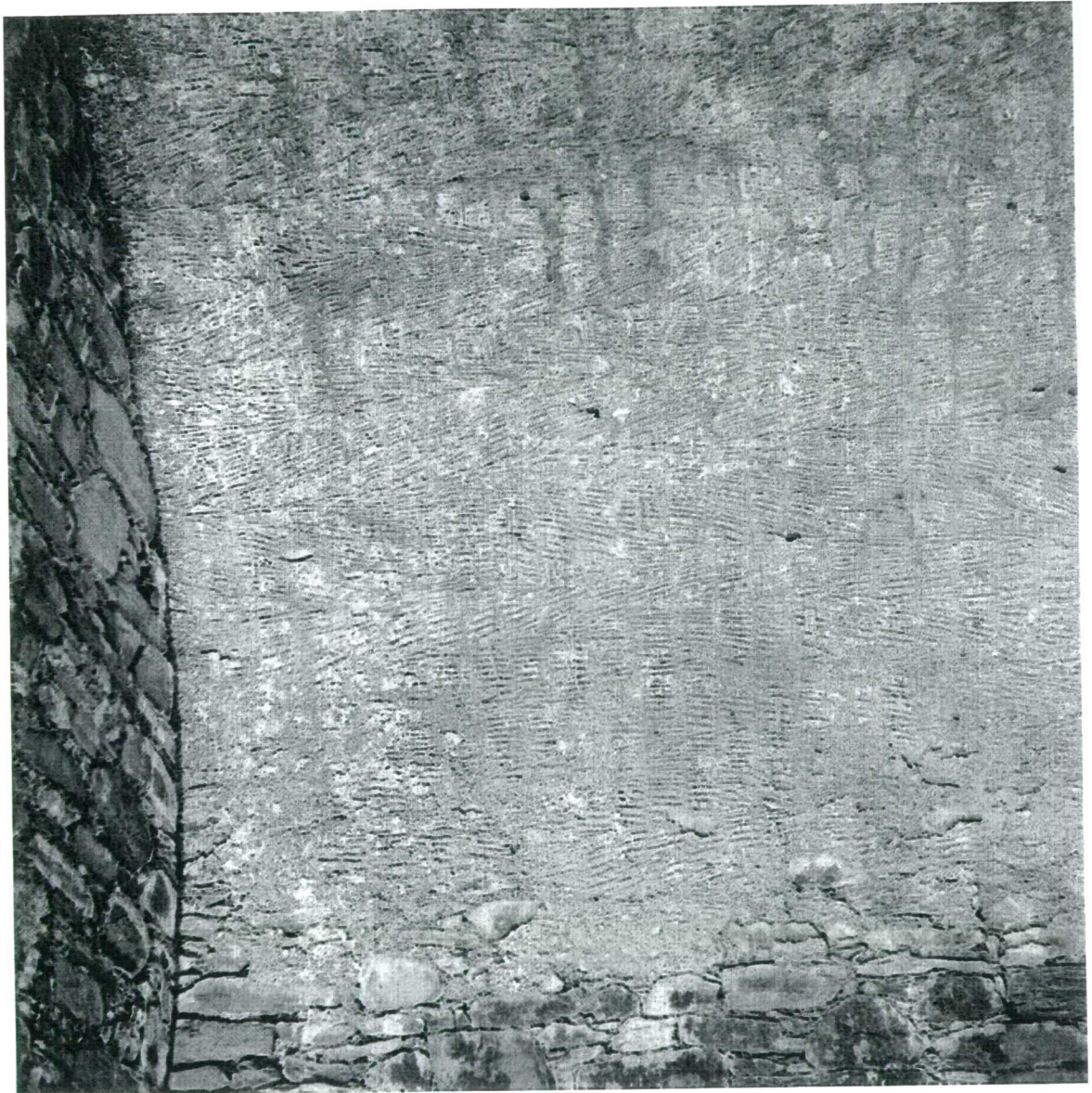
Learncon: 'ashlar rubble' coursing



**Plate I**

Kilcoe: putlogs (west wall)





**Plate J**

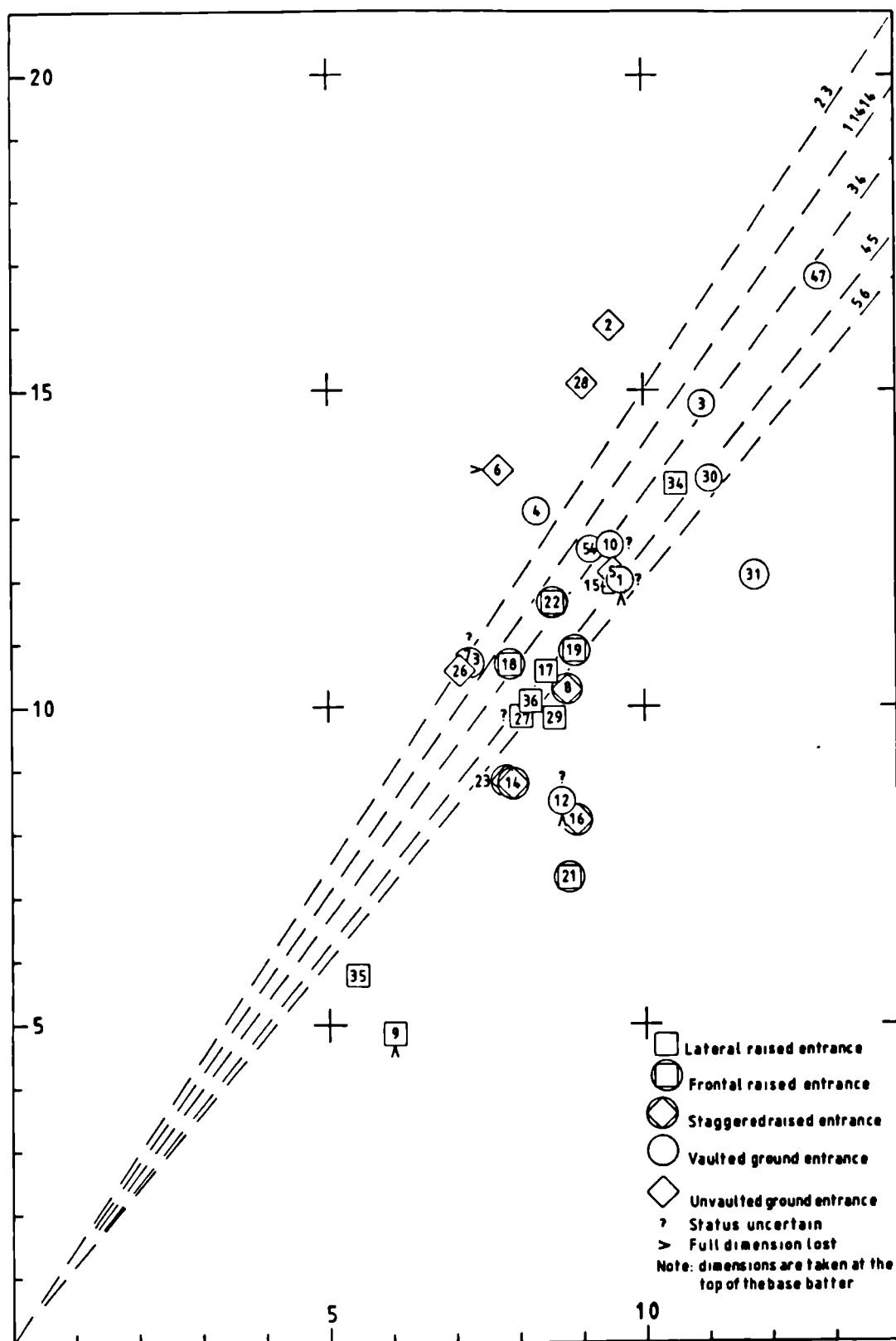
Kilcoe: underside of vault



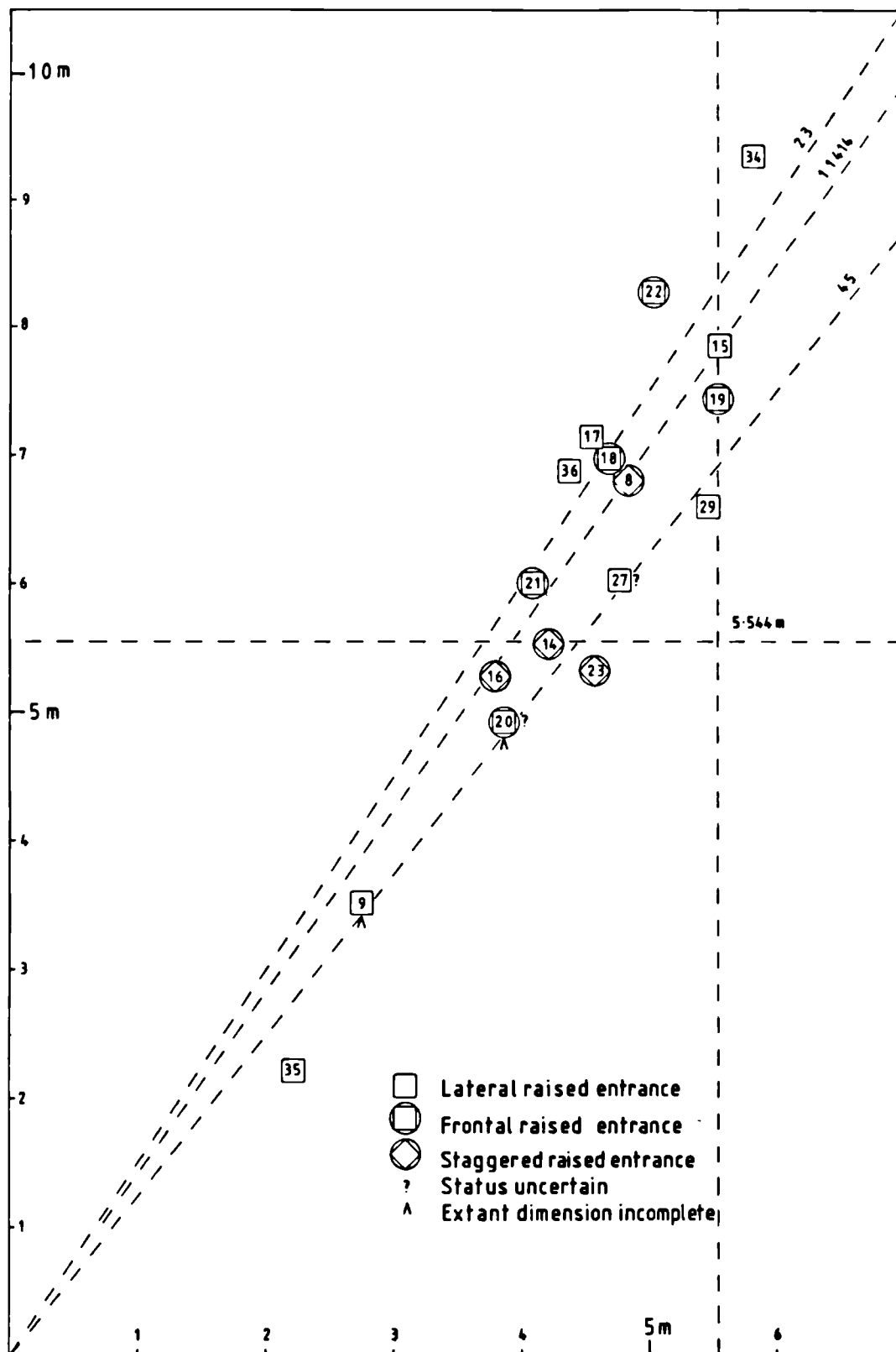


**Plate K**

Doonmacpatrick: external plaster render



**Figure d**  
External dimensions, where surviving, of tower houses in the Survey region



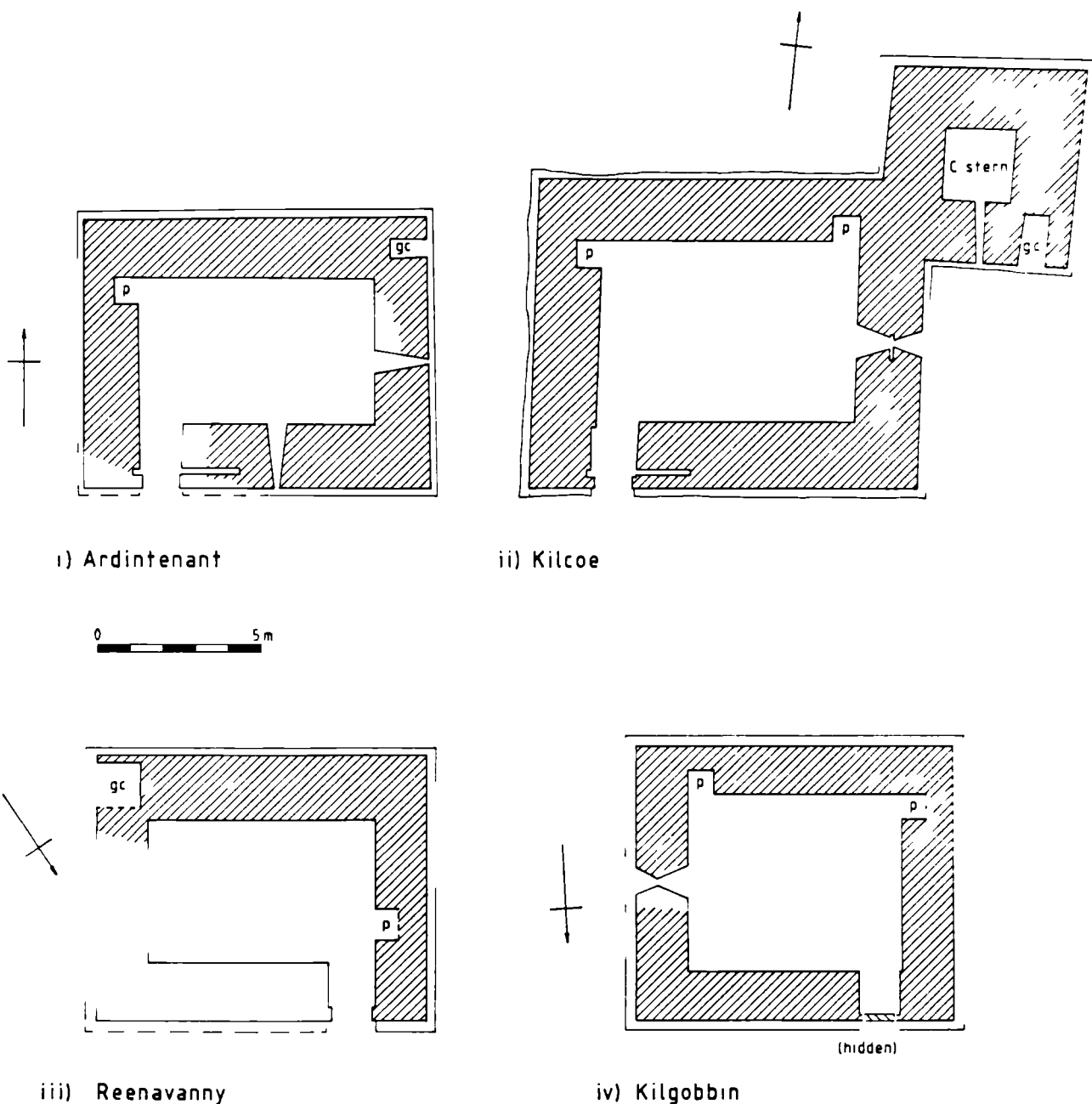
**Figure e**

Variations in the size of the ground-floor chamber in the raised entrance tower house



# Key to abbreviations in plans

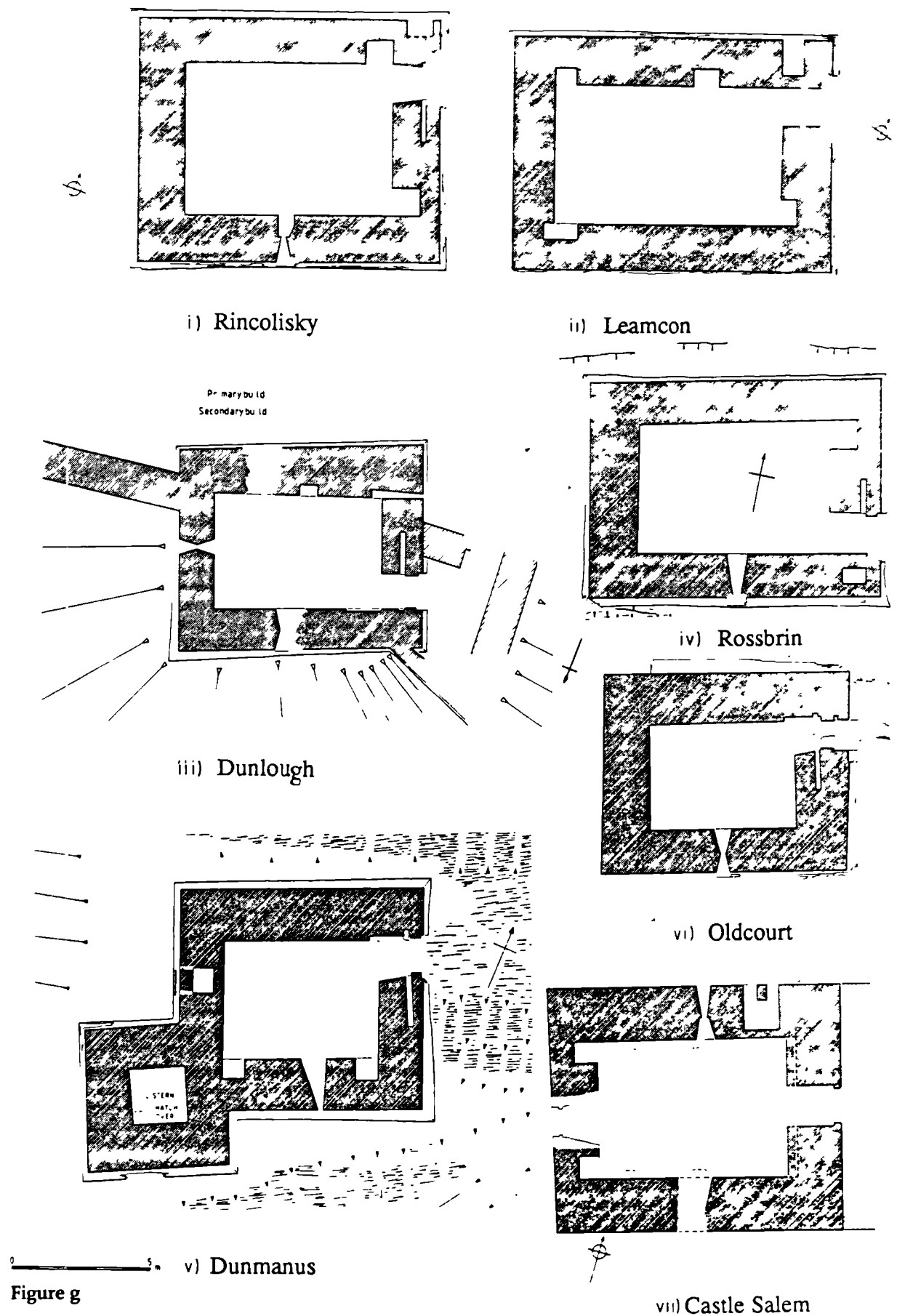
b = bench  
 f = flue  
 g = garderobe  
 gc = chute  
 gl = gun oop  
 fp = fireplace  
 cs = closestool  
 p = press  
 s = slopstone/soakaway  
 sc = service chute

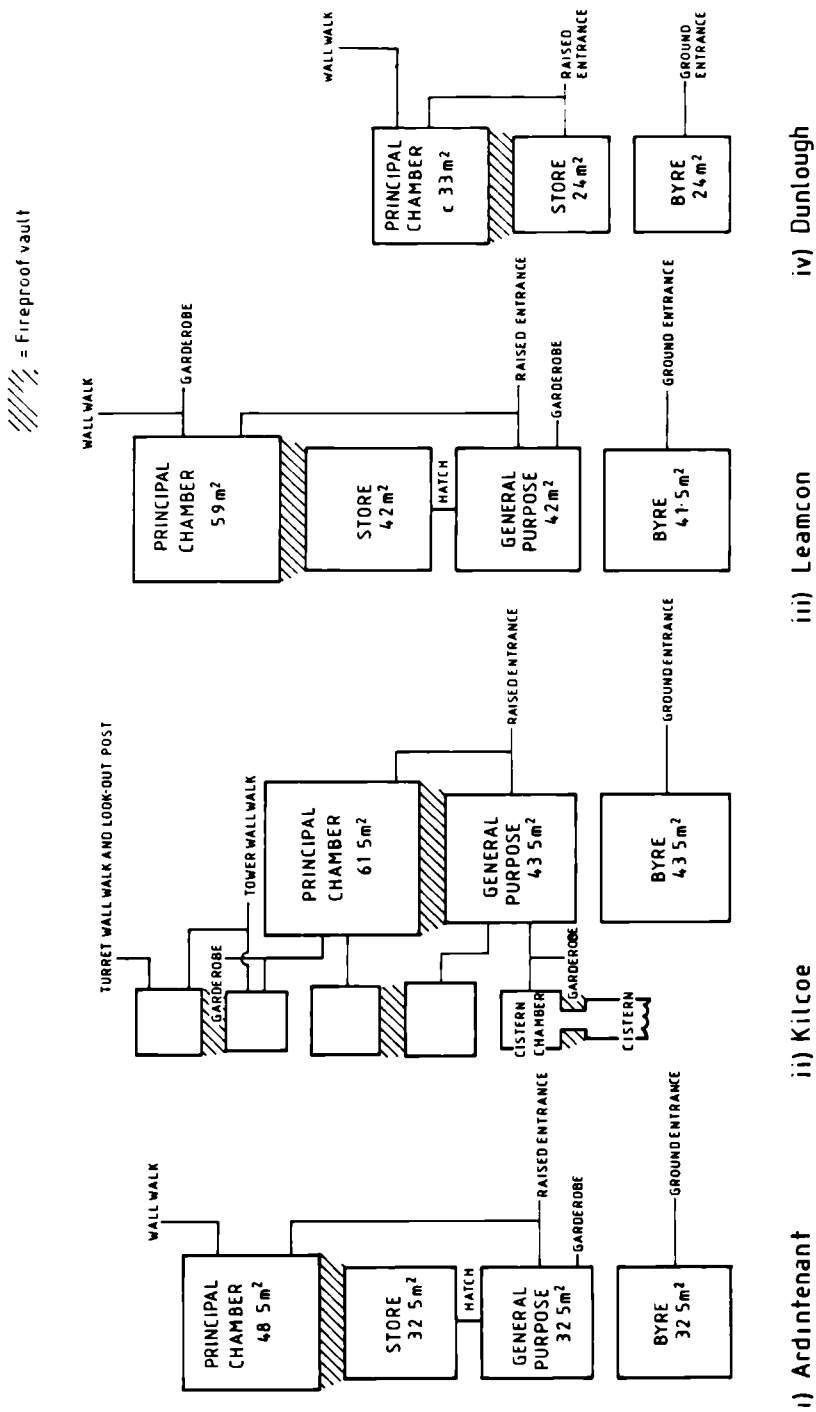


**Figure f**

Lateral raised entrance ground plans (oriented by entrance):

i) Ardintenant, ii) Kilcoe, iii) Reenavanny, iv) Kilgobbin

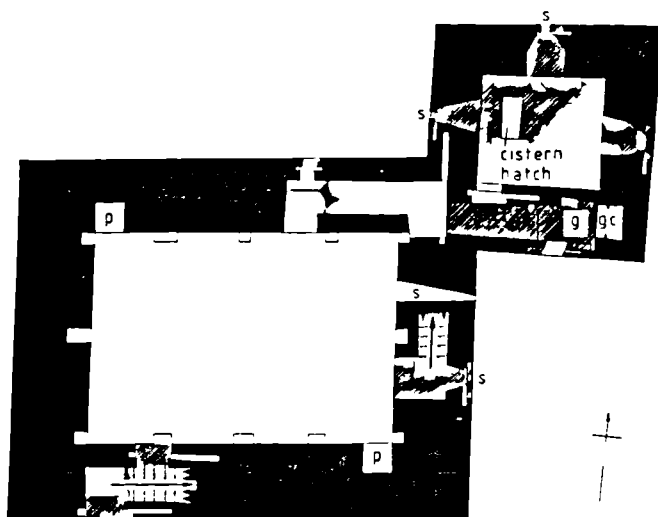




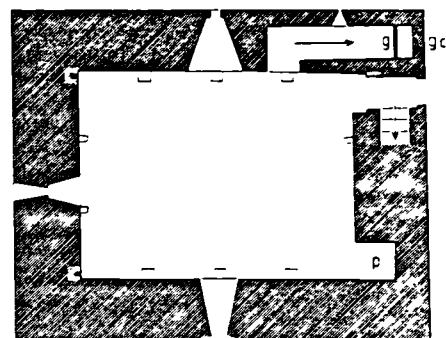
**Figure h**

Examples of lateral and frontal raised entrance internal layouts:

i) Ardintenant, ii) Kilcoe, iii) Leamcon, iv) Dunlough



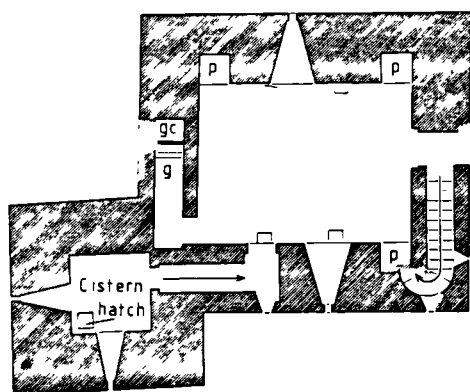
i) Kilcoe



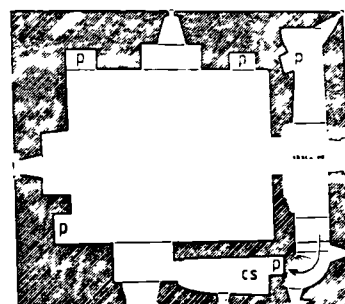
ii) Rincolisky

Figure i

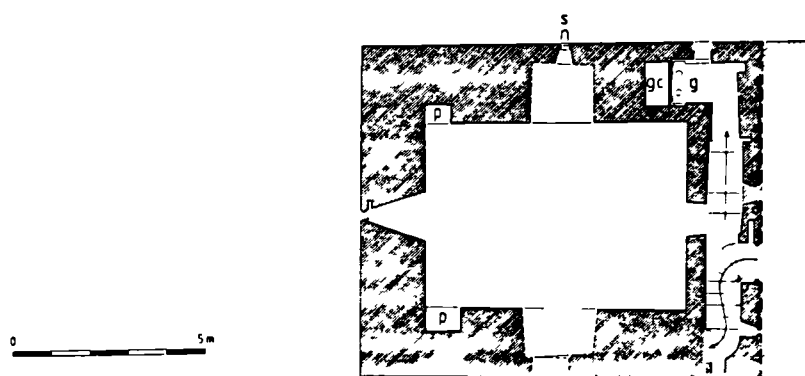
Examples of lateral and frontal raised entrance first floors: i) Kilcoe, ii) Rincolisky



iii) Dunmanus



iv) Dunalong

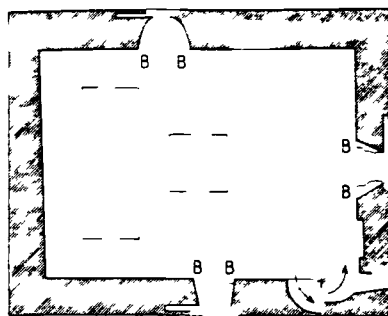


v) Castle Salem

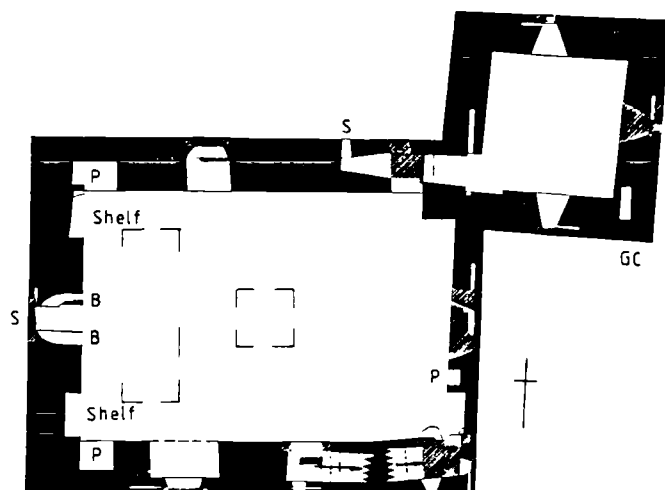
Figure j

Examples of staggered raised entrance first-floor plans:

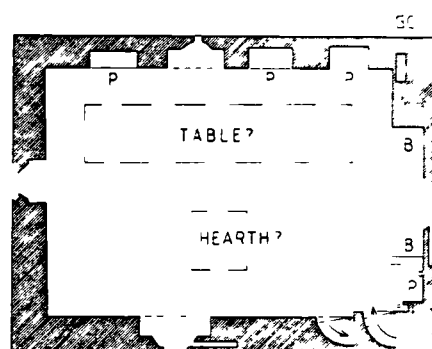
i) Dunmanus, ii) Dunalong, iii) Castle Salem



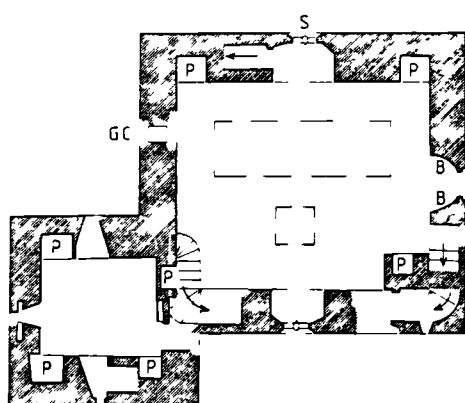
i) Ardintenant



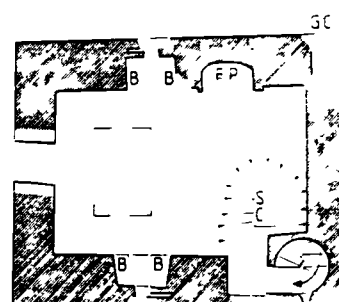
ii) Kilcoe



iii) Leamcon



iv) Dunmanus



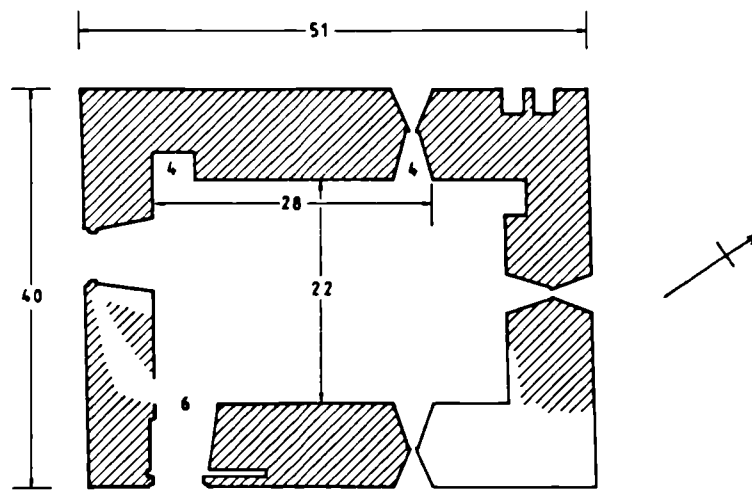
v) Oldcourt



**Figure k**

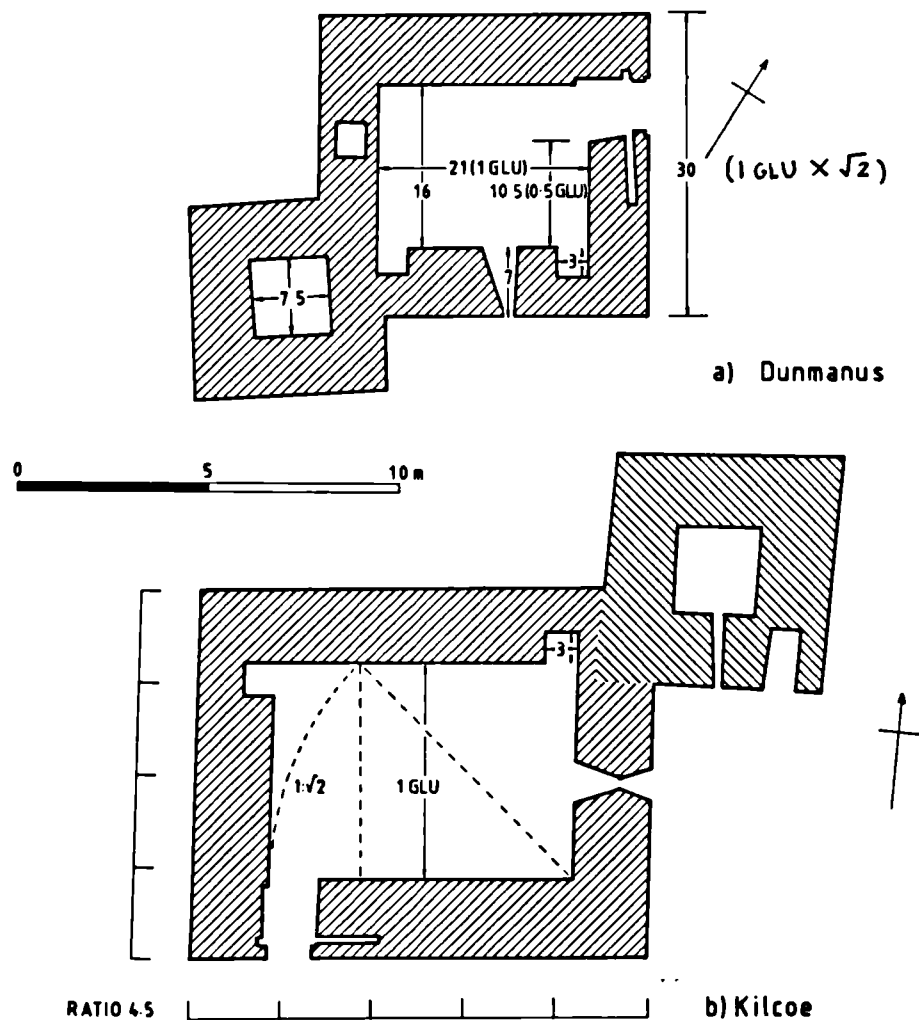
Examples of raised entrance principal chambers:

i) Ardintenant, ii) Kilcoe, iii) Leamcon, iv) Dunmanus, v) Oldcourt



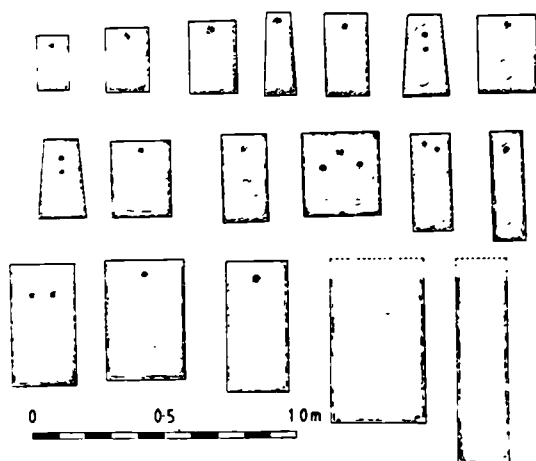
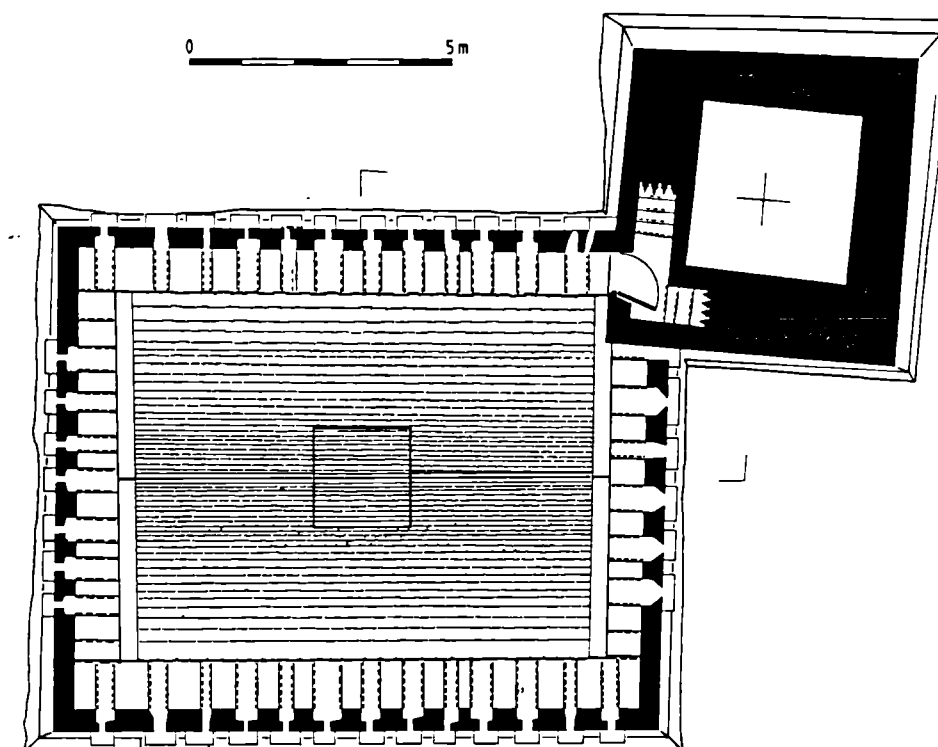
**Figure 1**

The 'Gaelic foot' as used at Timoleague (265mm)



**Figure m**

The use of the 'Gaelic long unit' as a setting-out tool: i) Dunmanus, ii) Kilcoe



**Figure n**

The roof at Kilcoe: i) Reconstructed plan of the roof, ii) Roofing slates (slightly restored)

## CHAPTER 3 THE RAISED ENTRANCE TOWER HOUSE

### 3:a The Ground and First Floors

#### Introduction

The entrance lobby of tower houses has been recognised as an important means of classification (Donnelly 1994, 37). This section describes the inter-relationship of entrance features in the raised entrance (RE) tower house (Figs.d,e,f & g). These features consist of the ground-floor and raised entrances, the lobby (the intramural landing behind the raised entrance) and the stair to the principal chamber. The exceptions are the two instances where the first floor acted as a principal chamber, these are described in the relevant section (Chapter 3:c). To clarify the descriptions a diagram summarising the variations in layout is used (Fig. h).

The ground entrance tends to be approximately twice the size of the raised entrance and the two are usually directly aligned, or else close together in the same wall. Three basic types are apparent:

The lateral raised entrance (LRE): This refers to the raised entrance's position in one of the long-axis walls. The ground entrance is usually directly below it and they are usually near an angle.

The frontal raised entrance (FRE): This refers to the raised entrance's position in the short axis, with the ground entrance directly below it. Both are always near an angle of the plan.

The staggered raised entrance (SRE): This refers to the raised entrance's position in the short axis, with the ground entrance displaced some distance from it. Either entrance can be central, but the raised one is usually nearer to the centre of the wall.

#### i. Lateral raised entrance (LRE)

Downeen [9], Kilcoe [15], Ardintenant [17], Farranamanagh [27], Kilgobbin [29], Timoleague [34], Monteen [35], Reenavanny [36]

A large robust entrance gave access to the ground-floor chamber and the raised entrance directly above served the remainder of the building (Pl.A, Fig.f). The ground-floor chamber was unconnected with the rest of the interior, its sole defence was a heavy door reinforced with a large drawbeam. Normally, this timber was pushed into its lengthy socket and the door was probably secured with an iron bolt and lock. Keys were used in tower house entrances elsewhere in Ireland (McComish 1969, 20). The heavy door pivoted on a cupped round spudstones which could contain a lubricant.

The ground plan is very simple with minimal openings and an absence of intramural chambers and passages (Fig. f). At first-floor level a long-axis wall, usually the south, housed an intramural flight of stairs from the first-floor entrance and this was necessarily the thickest of the four walls. The base-batter is noticeably pronounced in this type of tower house.



Lighting and ventilation was minimal in the ground floor. Single defensive 'hour-glass' loops were sometimes provided, but the comprehensive array at Timoleague is exceptional and reflects external influence (Chapter 6:e). Similar openings in Scotland are assumed to be for hand-guns (Maxwell-Irving 1971, 206) but are not widespread until after c.1540. Their main purpose was probably that of admitting air and a little light and only the most defensively important aspect is enfiladed. The opening type may have been intended for the short Irish bow described by a Catalan visitor in 1397 (Harbison 1975-6, 176) but it is conceivable that the matchlock hand-gun had become available in south-west Cork, although there is no evidence of the general use of guns in Ireland prior to 1500 (Simms 1975, 108).

There was invariably at least one large cuboid press. The interiors of these presses were probably whitewashed to reflect light into the chamber and oil lamps could be placed on their flat floors. The presses were usually set against the corners of the chamber.

Large corner turrets, where provided, contained cisterns (Fig.f,ii), but there is otherwise no evidence now visible for wells in these (or other) tower houses: a similar situation apparently prevailed in Clare (Donnelly 1994, 20) and Tipperary (Cairns 1981, 31). By their nature, however, such features are easily lost to sight, and it is possible they were more common than is now apparent (Jordan 1991, 177).

A chute opening that served garderobes on higher floors was usually present in the north-east angle (Fig.f,i). It has no connection to the ground-floor chamber. The outlet was downwind of the prevailing wind (Kate Hamlyn, pers. comm.). The absence of garderobes and, in some cases, openings argues that the ground-floor chamber was not intended for human habitation.

The importance of pastoralism (Nicholls 1993a, 410) indicates that a cattle byre, used only in times of unrest (see below) was likely to have been supplied as part of the architectural 'package'. The basement would have been capable of housing a few prized beasts, but the majority of the herds would have either been housed in the *bádhun* or driven off to fastnesses.

In the smallest of the LRE tower houses, the ground-floor chamber can only have been used for storing provisions, in one case (Monteen [35]) probably serving as a cistern chamber. These very small tower houses usually have 'service' chutes piercing the vault to allow provisions to be hoisted into the body of the tower house. These vault chutes were not provided in larger tower houses, where additional floors intervened between the ground floor and the principal chamber but similar hatches were probably provided through the timber floors. The narrow sloping service chute through the second-floor vault at Kilgobbin implies analogous hatches were present in timber floors. Floors immediately below the barrel vault could only be reached by such means. It is highly unlikely they were used for any purpose other than storage.

The ground-floor entrance was always much larger than the raised entrance, allowing cattle to pass through. It was usually c.1.10m wide which implies that shorthorn breeds were favoured. The equally stereotyped width (0.69-70m) of the raised entrance was a security feature allowing only one person to enter at a time.

A peculiarity of several of the ground-floor chambers was their great height. At Kilcoe, the timber ceiling of the chamber was 4m above the floor. This feature is highly regional (Chapter 5:c).

The first floor differed from the ground floor in that it was accessible to the occupants during a siege. In the RE tower houses the elevation of the timber ceiling reduced its vulnerability to fire or demolition from attackers who might penetrate the ground entrance. The first-floor chamber was usually the same size as the ground-floor chamber.

There is no trace of any provision for a semi-permanent timber stair at even the best-preserved RE tower houses; ladders were simply leant against the wall. The raised entrance was sometimes significantly lower than the level of the first floor and did not lead directly into it. The height of the raised entrance above the ground could vary considerably. The very elevated raised entrance at Kilgobbin is at second-floor level. At Kilcoe [15] (Fig.i), Ardintenant, Timoleague and (probably) Kilgobbin the raised entrance opens onto a long intramural flight of stairs (Pl.B), which ascends through the entire thickness of the long-axis wall. At Ardintenant and Kilcoe, it rises to the east. The surviving part of Reenavanny (Fig.f,iii) indicates that this was a 'mirror-image' of Ardintenant (Fig.f,i) with a 'west-rising' stair. In the smallest LRE tower houses (Downeen, Monteen) stairs were entirely absent.

At first-floor level outer and inner entrances were reinforced by stout drawbeams. The first-floor chamber is usually illuminated by two or three simple loops that are triangular in plan and of little defensive utility (Fig.i,ii). The jambs were sometimes slabs of split sandstone and lacked hinged shutters, let alone glazing but drawbeams indicate that removable shutters could be used to block the openings in inclement weather. RE and SRE tower houses had more elaborate windows at this level (see below) which could be secured by hinged shutters.

The garderobe is usually at the eastern end of an intramural passage that runs from the east side of a north loop embrasure (Fig. 17,ii). The first-floor garderobe was a near-universal feature. This feature proves that the chamber was intended for some degree of domestic occupation despite its unpromising appearance to modern eyes. Fireplaces were absent in all the LRE tower houses with the exception of Monteen. This seems to have been due to cultural preferences for open hearths rather than technical ineptitude as the fireplaces at Monteen are perfectly serviceable. The possibility that hearths were laid over the timber first floor cannot be ruled out, despite the lack of escape for smoke. It has been suggested that stone paving covered the timber floors at Clara Castle (Duggan in

Donnelly 1994, 34). Such a surface may have formed a practical hearth, but conclusive evidence for such floors, except in small turret chambers, is lacking in the Survey region (Chapter 3:e,iv).

ii. **Frontal raised entrance (FRE) and Staggered raised entrance (SRE) tower houses**

Castle Salem [8], Dunmanus [14], Oldcourt [16], Rossbrin [18], Rincolisky [19], Castleduff [20], Dunlough [21], Leamcon [22], Dunalong [23]

The manner of construction of FRE tower houses was similar to the LRE tower houses, but the entrances were built into the eastern (short-axis) wall (Fig.g). The entrance was in the east wall in the most sheltered side, away from the Atlantic, except when topographical factors dictated otherwise (Pl.C). This layout had structural advantages because the intramural stair was removed from the walls that supported the barrel vault. The layout occurred in 'right-hand' and 'left-hand' versions; the right-hand being more common. The ground entrance was almost always set against an angle of the chamber.

At ground level, the entrance wall was slightly thicker than the wall opposite. As in the LRE tower houses the chamber was very tall (c.3.7m) for the same reasons. The garderobe outlet was usually set in the base-batter, but was sometimes elevated above it to prevent attackers climbing up the shaft. As in the LRE tower houses, the north-east angle was a favoured position for the outlet but the raised entrance meant it had to open to the north of the angle rather than to the east.

As in the LRE tower houses loops at ground-floor and first-floor level were few and occasionally entirely omitted (Leamcon, Dunlough). Corner presses are numerous and vary in size, form and, apparently, functions. The darkest corner was to one side of the entrance, and this was the favoured position for a particularly large cuboid press.

In some of these tower houses, the two entrances were not directly over one another and the raised entrance was built in a more central position (Pl.C); this was a more practical arrangement because a ladder would not obstruct the ground entrance. The off-centre arrangement is seen at Dunmanus (Pl.14,ii), a tower house that was otherwise very similar to Rossbrin (FRE).

Small tower houses tend to have most of the features present in large tower houses, but in varying degrees of simplification. Oldcourt has a first-floor vault and a 'service' chute through the vault (Pl.D) similar to the one at Downeen (LRE). The central raised entrance next to a portcullis chamber directly over the ground-floor entrance is a unique feature in the Survey region but does occur elsewhere in Munster (Chapter 6:e). Such features are here distinguished from 'yetts' which are here defined as externally hinged and secured iron grilles or grates. There is documentary evidence for such a feature at the demolished Carrighnassig [45] at the eastern border of the Survey region (MacCarthy 1922, 124). Unambiguous evidence is lacking in the Survey region, although features are present which can be interpreted as evidence (Chapter 4:a).

Dunalong (SRE) has a squarer plan than is usual which corresponds exactly to Dunmanus's main tower, a similarity that is not accidental (Fig.j) (Chapter 5:a).

Castle Salem shows traits more commonly encountered in GE tower houses and was larger than most RE tower houses. The additional height (and greater vault) required thicker long-axis walls than those of smaller tower houses. The absence of a base-batter is one of several peculiarities which suggest influence from other parts of County Cork (Chapter 6:e). The ground-floor chamber is not of any great height. Unusually the door is positioned in the centre of the wall and is much wider than those of earlier tower houses (Fig.g,vii). It is framed with a light chamfered limestone moulding, rather than the standardised massive sandstone jambs employed in the other RE tower houses of the Survey region. The door arch is shallow with only a slight point and is turned from two huge curved blocks. At Monteen (LRE), Downeen and Dunlough the arches are turned from small rough slabs but this is probably an 'economy' feature. No examples of 'two-stone' RE door arches survive with the exception of Castle Salem.

Some FRE and SRE tower houses show a greater sophistication in the details of the first-floor chamber, perhaps indicating the intention of domestic use (Fig.j). In these tower houses crisply dressed, chamfered loops at the centre of each wall light the chamber. The embrasures are of capacious oblong form with arches rather than the constricted triangular embrasures seen in LRE tower houses. They admitted more light and increased the field of vision from each loop. The dressed freestone openings had pivoting timber shutters with drawbeams. Presses are abundantly supplied, often in flanking pairs.

The absence of first-floor chambers below the barrel vault in the smallest RE tower houses shows that this chamber was dispensable; there is little evidence that it was used for defence. At Rincolisky an 'hour-glass' loop was supplied in the first floor (Fig.i,ii), but this is very unusual. At Dunalong (first floor) and Kilgobbin (second floor) angle loops were provided from intramural chambers (Pl.E).

Defensive access passages that run the full length of the entrance wall are seen in conjunction with the first-floor chambers of the SRE tower houses (Fig. j,ii,iii).

The position of the entrance meant that a partial spiral was needed in the FRE tower house. A reliance on the spiral stair as opposed to the straight stair is a feature of the SRE tower house. The 'staggered' raised entrance at Dunmanus gives access to a straight intramural stair that runs only half the length of the entrance wall before meeting a spiral stair within the north-east angle (Fig.j,i). The similar entrance arrangement at Dunalong has a passage to the right hand of the entrance leading to the corner loop this can be seen as a typological development (Chapter 5:e). At Castle Salem, the entrance wall contains a series of intramural passages, one at the level of each floor; Dunalong may have been similar. The spiral stair at Oldcourt runs the remainder of the height of the tower house

without interruption and is lit by loops at regular intervals, alternating from the south to the east wall. This arrangement is standard in the GE tower houses.

The large first-floor chamber in the RE tower house would have been a suitable granary or food store, inaccessible to rodent pests, and there is documentary evidence that grain was stored in barrels in Cork tower houses (Power 1992b, 221). There is no direct evidence this was the case in the Survey region, but the very non-specific nature of the chamber would allow much flexibility in its use. Only at Castle Salem, is there incontrovertible evidence of domestic occupation below the third-floor level barrel vault in the form of a fireplace. The Monteen 'tower house' is exceptional in that fireplaces show it was a wholly domestic structure without byres or storage or a principal chamber. The latter chamber can be defined as the mark of a true tower house.

### 3:b Second and Third sub/vault Floors where present

The combination of straight stairs and low level of the vault springing meant that it was impossible to provide a door for the second-floor chamber without compromising the strength of the vault. In most FRE tower houses the second floor was supported on re-utilised vault centring corbels and was only dimly lit by a single loop in the east or west wall. An opening in the ceiling of the first floor presumably allowed it to be reached by a ladder or timber stair. This 'opportunistic' sub-vault chamber was not always provided and at Kilcoe and Rincolisky, the space under the vault formed part of the first floor. Only at Castle Salem did the use of intramural passages permit a proper entrance to a comfortably proportioned chamber with a fireplace below the vault. Kilgobbin was even more radically different from the other RE tower houses; three storeys divided by an 'intermediate' barrel vault were fitted between the ground floor and the principal chamber. These floors were connected by a chute through the barrel vault (see above).

### 3:c The principal chamber and associated features

Only a handful of RE principal chambers survive but a wide variety of GE principal chambers survive. The principal chamber was never placed in the ground floor and only the smallest RE tower houses had first-floor examples. It was never covered by a barrel vault and was usually in the top floor directly below the roof. This position is by far the most common position for the chamber in Irish tower houses (McCullough & Mulvin 1987, 37) although it was by no means universal. The chamber could be very tall: 6m from the floor level to the roof eaves is an extreme seen in LRE tower houses but most examples were only slightly lower. It is unsurprising that this space was sometimes subsequently divided by another floor.

LRE principal chambers survive in a remarkably intact state at Ardintenant, Kilcoe and Kilgobbin (access denied) but there is little significant difference between these and FRE examples and they can be discussed as one. The principal chamber at Ardintenant (Fig.k,i) is very tall and occupies over a third of the volume of the tower house (Fig.h,i). A great reduction in wall thickness permissible over the vault allowed it to be much larger than the sub-vault chambers. The smoke from a central hearth presumably found its way out through a louvre in the pitched timber roof. The height of the chamber helped it rise above the people.

The east window was usually the largest, with two and sometimes more lights (Kilcoe); the south generally had two lights while the north and west had single lights. Often one or more of the windows were provided with flanking window seats. Variation occurred: at Kilgobbin the east and north windows had two lights, while the others are single light. In three instances there are no western openings (Fig.k, i,iv,v). This may have been to prevent draughts. The three windows at Dunmanus were uniform and centrally positioned in the walls. Usually the north and south windows were displaced slightly westwards from a central position.

The two-light and single-light windows had simple ogival heads or cusped trefoliated heads with cut-away spandrels. The paired openings sometimes have square hood moulds with ornamental label stops, but the casement was more often sunk within a chamfered frame (Fig.k,iv). The largest windows may have had tracery but this had always been destroyed and the only surviving clues to its past existence are external relieving arches. The lights could be closed by hinged shutters held in position by small timber drawbeams but glazing grooves are absent. The shutters hung on spudstones or, more rarely, iron pintles clamped between the jambstones. Large slop channels pierced the sill below the windows. The heads of the embrasure arches are segmental and turned from rough slabs. Very rarely a more ornate pointed form is used. Mouldings are absent but sometimes the embrasures are carefully quoined with edge-cut slabs. Internal ornament of the chamber is unknown in the RE tower house.

In the RE tower houses the stair to the wallwalk is usually interrupted at the level of the principal chamber as a security measure. It is usually of spiral form above that level and is entered either from the south-east corner of the principal chamber or its eastern window embrasure (Fig.k).

The east and west walls usually supported roof gables although hipped roofs were also sometimes used. At Kilcoe and Leamcon the vanished gables were supported on a distinctive corbel table supported by corbels. In other tower houses a single large arch served this purpose; sometimes the gable was simply corbelled in by a series of horizontal jetties.

A garderobe was almost always provided in the north-east corner; it was screened from sight by a closed-in gallery above one end of the hall, usually the east end. The chute fell to meet the chute of the lower garderobe. This gallery was supported by a single great arch spanning from the north to the south walls. An elaborate array of 'inset' and 'normal' corner presses and 'shelves' flanks the western embrasure at Kilcoe (Fig.k,ii). These were probably connected with ceremonial functions. The emphasis on the west end is not constant: Leamcon's principal chamber was very similar to Kilcoe in every respect except that the emphasis is on the north wall which is punctuated by three wide recesses (Fig.k,iii). A similar northern emphasis is seen at Dunmanus, this may be connected with the status of the lord (Chapter 6:c). These features share the single characteristic of being in walls away from the chamber entrance (see below).

Major departures from the standard layout are usually caused by additional turrets. The building of an integral turret with the main tower at Dunmanus led to several peculiarities in the layout of the chamber. A dogleg stair sunk into the south-eastern<sup>corner</sup> of the hall leads downward to the second floor of the turret (Fig.k,iv). This rather hazardous feature was the only way of reaching a chamber in the turret below.

At Downeen (Pl.9,i), the principal chamber was probably little more than 20 square metres in area, minuscule compared with Kilcoe. At Oldcourt the masons seem to have inserted wall fireplaces to heat both chambers because the layout prevented the use of a central hearth. This suggests that the solar was an insertion.

The principal chamber is not always the highest chamber; at Rossbrin, Downeen and Oldcourt a solar is provided above it. The solar had a small secret intramural chamber unique in this type of tower house. The sole entrance of the secret chamber was a small door (now destroyed) in the south-east corner, nearly two metres above the floor of the solar. The Rossbrin solar was evidently a very large chamber with, it seems, windows at the cardinal points. As such it can be regarded as a second principal chamber. It is probable that the decision to insert it over an open hall was taken at a late stage of construction.



Privacy did not exist in an RE tower house when most of life's activities were carried out in the principal chamber; even garderobes could be communal (Kilcrea). Nevertheless, care was taken to segregate garderobes from the principal chamber. The occupants of the principal chamber would be seated at a table which probably ran along the west or north wall away from the entrances, usually the east (upwind) end of the chamber. The table was a standard fixture of the Gaelic ground-level hall, as contemporary accounts imply (Simms 1975, 105) and its presence in the principal chamber is indicated by the layout (see above).

The rarity of purpose-built furniture is suggested by Richard Stanihurst's 1586 account of the use of piled-up straw as tables, seats and beds (Simms 1978, 81). As late as the mid-Seventeenth Century travellers attest to this lack of furniture. M. Bouillaye le Gouz, in 1644, wrote that 'they have little furniture, and cover their rooms with rushes, of which they make their beds in summer and straw in winter. They put rushes a foot deep on their floors and on their windows [embrasure floors?], and many of them ornament their ceilings with branches' (Leask 1951, 91).

As in major Scottish fifteenth-century towers where they could easily have been built (Stell 1985, 203) fireplaces were absent, as a rule, from the RE tower houses (see above). A hearth at the centre of the principal chamber may have been used for simple roasting and boiling (see below). Occasionally wall fireplaces were inserted (Kilcrea); GE tower houses usually contained built-in wall fireplaces, occasionally very ornate (Chapter 4:c).

The principal chamber was equipped to allow the lord to carry out his tasks. At Kilcoe the 'slot' in the west wall may be for the *Slat Tighearnuis* or chieftain's rod of office described by Simms (1987, 31) and may therefore indicate a tower house built specifically for a chieftain as opposed to a tanist or other *derbfine* member. At Kilcoe, Kilcrea and Carriganacurra 'shelves' are set at different levels in the west wall (Chapter 4:c). Jordan has pointed out that in Wexford the 'inset corner presses' associated with these slots probably served some function other than storage (1991, 118) but he does not mention any analogous 'shelves'. The chieftain's cup was another important object which may have had its own press or shelf. Privileged members of the *ollamh*, such as the bard, could sit next to the chieftain and drink from his cup (Simms 1978, 89). It is probable that the 'inset corner presses' contained timber 'safes' that could be 'locked' by moving them into the inset to the side. The chieftain's set of plate may have been stored in them. A problem with this theory is the presence of a slop outlet in an inset press at Dunlough, but a dual purpose may be indicated there.

Leamcon and Dunmanus seem to have had the table against the north wall and lacked any possible 'safes' or 'rod of office shelves'. This may reflect their tanist rather than chieftain tower house status, known from the documentary record. Oddly, inset presses occur in other chambers in those tower houses, perhaps as safes (Figs.g,ii & k,iv).

### 3:d The roof, wallwalk and associated features

Only a solitary Irish tower house roof is known to survive, at Dunsoghly, in the historic Pale (Leask 1951, 120); its hipped form differs from the gabled form known to have covered the majority of the tower houses in the Survey region. No roof survives in the Survey region but it is possible to discern them in outline by study of the provision made for them in the masonry. The study of this part of RE tower houses has to be based on scraps of evidence; because often even the wallwalk slabs have been robbed.

Surviving church gables and a depiction of Timoleague Castle in the Nineteenth Century (Stalley 1991, 28) suggest that the RE tower houses in the Survey region had steeply-pitched roofs running along the long axis of the plan. These were usually supported on gables (all now destroyed) but hipped roofs were also apparently employed and a pyramidal roof is depicted in the early Nineteenth Century at Kilgobbin (Stalley 1991, 44) although there is no evidence this was original. The roofs of RE tower houses must have been impressive feats of carpentry. The roof at Kilcoe, for example, spanned a void 8.3m by 6.25m, and GE tower houses such as Kilcrea [30] had even larger roofs (Chapter 4:d). The trusses were seated on heavy timber wall plates on the north and south walls when gables were used. The wall plates ran the length of the roof and were prevented from spreading outwards by the butt ends of wallwalk 'saddle stones'.

The masons almost always had problems surrounding wallwalks with parapets. Wallwalk, roof seating and parapet had to fit on a wall that was necessarily thin for structural reasons. Wallwalks were very simple in the RE tower houses and do not usually depart from a single level. Various jettifying methods were used to widen the top of the wall.

Few of the RE tower houses retain more than the lowest courses of their parapets and the method of crenellating is quite unknown. Parapets were typically 0.41m thick and were probably crow-stepped like the surviving parapets in friaries such as Timoleague and Sherkin. Roofs were slated (Chapter 3:e,iv.).

The builders of RE tower houses made provisions for hoardings which consisted of large holes through the parapets at regular intervals. An exceptionally complete provision of these features survives at Kilgobbin (Pl.E). Some hoarding sockets also survive at Dunmanus and Rossbrin and it is probable that they were the rule rather than the exception. The sockets held the projecting timbers of a defensive hoarding; defenders could lean over the parapet to drop stones on or shoot at attackers while being protected by a boxed-in hoarding of timber. Hoardings were not universal. At Kilcoe enough of the north parapet survives to confirm their absence.

Machicolations (for which evidence in the form of corbels is likely to survive) are virtually unknown

in the RE tower houses; the only certain evidence of one is at Dunlough where a machicolation was placed over the vulnerable angle next to the entrance.

A weather-proof turret with a door sheltered the stair well. It was usually directly above the main entrance to the hall. The spiral stair usually gave access to the east end of the south wallwalk. The relation of the stair to the other elements of the plan remained constant even where the entire tower house's relation to the cardinal points was reversed from the norm (i.e. Oldcourt).

The stair turret is usually destroyed but an example survives to the east of the Survey region at Dundanier. A second north door was provided in the turret to allow it to be re-entered from the east run after a complete circuit was made, but the person re-entering the turret would have to jump down to the spiral stair several steps below the southern threshold. This arrangement seems to have existed at Dunmanus.

Two courses of slate slabs sloped down gently towards the exterior to form the wallwalk. Slabs lay edge to edge in the lower course and entirely covered the top of the wall; they projected inboard of the internal wall face where they were further supported by internal horizontal jetties c.0.5-1.0m below. Joints between the slabs are covered by narrow 'saddle stones' with chamfered edges. The gaps between the saddle stones collected rainwater from the roof which escaped through holes regularly spaced along the base of the parapet. Rough projecting slabs threw the water clear of the walls. These slabs were sometimes formed by extensions of the lower layer of wallwalk slabs, but usually separate slabs were used.

The outer ends of the saddle stones were embedded in the parapet. The saddle stones left a bare internal platform 29cm wide for the roof's wall plate to rest on.

Where gables were employed the east and west wallwalks were 0.30m higher than the north and south wallwalks. This reinforced the gable by reducing their external height. The gable may have had internal offsets, of the type observable in church ruins (Kilcoe).

### 3:e Construction techniques

This section first deals with construction techniques and building materials and then the more contentious subject of mensuration and design process. The dating implications of these techniques are discussed in the conclusions. The degree to which the tower house was designed in advance of construction, as opposed to being arrived at in an *ad hoc* and intuitive manner is postulated. The proviso is given that the solutions proposed by the author would have been workable, rather than that they were certainly used.

#### i. Quarrying and stone selection

Facies of the Old Red sandstone occur throughout South-west Cork (Whittow 1978, 220) and these were used to build all the tower houses of the Survey region. The stone is hard to work against the bed but breaks conveniently into flat slabs. The degree of bedding varies greatly because the rock grades into slate which occurs in quarries at Benduff and Kilgobbin. The wallstone is resistant to weathering and can appear as fresh as the day it was laid. Slate was used for lintels of embrasures and intramural passages as well as for the paving of wallwalks and the subdivision of garderobe shafts. Shale was used for roofing (Kilcoe). A particularly hard sandstone was used in very large blocks for the ground entrance jambstones and arch, as well as the quoins of the base-batter. This may indicate the existence of further specialised quarries (Chapter 6:f). Temporary quarries were made and then abandoned, as was the case in Limerick (Donnelly 1994, 225). These are sometimes still recognisable.

Most tower houses were built from stone quarried next to the tower house, or within a short distance. The stone seems to have been quarried by first working a vertical face in a slope and then continually undermining it. The quarries can be seen at Kilcoe (Pl.F), Leamcon (Fig.22,i) and particularly clearly at Reenavanny; these are respectively irregular, straight and crescent-shaped in plan. Laborious quarrying was avoided if possible and rounded beach stones were worked into the core of the walls of coastal tower houses (Westropp 1914, 112); freshly quarried stone was however invariably used for the facing.

The ornate openings associated with the principal chamber were usually dressed with relatively soft grey/greenish freestones from specialised quarries; geological fieldwork may one day reveal these. Exotic stone is very unusual but at Dunmanus the elaborate hall windows were dressed with a coarse gritty purple stone of unknown source.

The opportunity was taken when quarrying to strengthen the site; the builders at Kilcoe cut through an intervening neck of land (Pl.F), thus severing the stronghold from the mainland. The defensive strength of the site at Rincolisky and Reenavanny was apparently enhanced by these means. Deliberate remodelling of the local topography also seems to have been carried out at Rossbrin [18]

and at the destroyed tower house of Ardagh [80].

## ii. The foundations

The builders of tower houses of all types in the Survey region aligned the plan on the *strike* of the rock, i.e. the direction of a horizontal line on a dipping stratum, the strike being at right angles to the dip (Whittow 1978, 280); this rule was even observed on level sites with a deep overburden of soil as well as on sites where the rock was exposed. The belief that masonry buildings had to be oriented on the strike to be stable was evidently deep-founded. The cardinal orientation of each tower house was therefore usually the result of the local variations in the direction of crustal folding, so that the usual orientation was WWS-EEN. The long axes of the base were usually aligned along the strike, with a handful of exceptions where it was at 90°. In rare cases, some other method was used to orient the plan (Chapter 3:f).

A foundation trench would be dug through soil and frost-shattered (soliflucted) rock where present until solid rock was met. A foundation with a level upper surface was then built out of large slabs (the upper parts of this have often been exposed by subsequent soil erosion). Stepped 'ziggurat' foundations were sometimes laid elsewhere in Ireland (Clounmelane, Co.Kerry: McAuliffe 1991, pl.3), but only excavation could confirm if these were used in the Survey region. The outer edge of the foundation was typically separated from the superstructure by an offset. At Oldcourt erosion reveals that the foundation is built of rough slabs embedded in a fine grained earth mortar (puddled clay?). At about 1.5m above the natural rock, the builders switched to a lime mortar for the superstructure.

The soft matrix of the foundations allowed it to flex under the weight of the superstructure rather than crack. There was, however, a risk of cracks propagating along the lines of windows if the superstructure mortar lacked tensile strength. Where this was deficient, a tower house would tend to expand outwards at the top, leading to piecemeal collapse (Dunbeacon [7]). For this reason, exact alignments of openings were studiously avoided at the expense of any regularity in their arrangement.

The superstructure of some RE tower houses was built directly onto living rock without distinct foundations. Sometimes the rock was levelled for convenience. The destroyed tower house of Ardagh was surrounded by a level 3m wide stone terrace on the north and east sides. Elsewhere the masons found it easier to fit the base onto the natural shape of the rock (Dunmanus), a technique which required considerable skill.

## iii. Masonry construction and the role of falsework

There seems to have been no 'standard' length of time taken to construct a tower house. Inhabitants of the Pale could hope for a subsidy from Henry VI if they completed a small tower, fifteen by twelve feet (4.57m x 3.65m) inside and forty feet (12.19m) high within three years (Cairns 1987, 19). The

tower house of Lifford, County Donegal was built in the summer of 1527 (ibid.). No such statistics survive for the tower houses of the Survey region, but the homogeneity of masonry and rarity of recognisable breaks in construction implies that they were usually built continuously (Samuel 1984, 61) and by the same personnel; this suggests, rather than proves, rapid construction. The enormous variation in the size of RE tower houses means that some were built much faster than others, even if the same techniques were used.

*Lift horizons* are rarely apparent (Pl.G) but unless changes in technique occurred, they are hard to spot. The masons co-ordinated their progress so that the working surface was always approximately horizontal. An absence of frosts and the technique suited continuous construction. Every facing stone was carefully tested for its best fit to minimise the width of joints. Small fragments of quarry waste were used to plug any gaps between the larger stones. The stones therefore rested tightly in position from the outset, obviating the need to wait for the mortar to set. The stones in the wall core were more roughly laid, but the proportion of mortar to stone was relatively low.

One edge of each large facing slab was split or trimmed flat across the bed but additional dressing was otherwise kept to a minimum. Even the finest rubble went into the mortar, preventing any wastage (Pl.H).

Limestone was probably the chief component of tower house mortar (Donnelly 1994, 227-8) but bullock's blood is traditionally recollected to be a component. The mortar of the RE tower houses is very variable in hardness. It is mixed with a very high proportion of coarse rolled beach sand and quarry waste to minimise the amount of lime used; sea-shells were sometimes mixed in with the beach sand. Experimentation occasionally occurred: at Dunbeacon the mortar contains countless tiny rounded fragments of 'coral' deriving from a calcareous seaweed *Lithothamnium* (Whittow 1978, 165). This sand must have come from a nearby 'coral strand' that has now vanished. The sea-shells and 'coral' were presumably included in the vain hope that their lime would strengthen the mortar. Other mixes were as durable as concrete; at Dunanore [25] the mortar was sufficiently strong to hold together the fallen fragments of the tower house which still litter its base. In contrast, the curtain-walls at Dunlough are mortared with mud and are crumbling quickly where deterioration has been allowed to set in (Pl.G).

The embrasures of the windows of the first two floors were usually lintelled, but the embrasures of the hall windows, too wide to be spanned by lintels, were arched except in the smallest examples. The four windows of the principal chamber were dressed with freestone. Cost, as well as defensive requirements, was a limiting factor because freestone moulded windows tended to be absent from minor tower houses such as Oldcourt. Some RE tower houses, such as Castle Salem, used chamfered freestone dressings in all but the smallest loops. This reflects superior resources available to the MacCarthy Reaghs.

Jambs and embrasure scoinsons were quoined with large 'edge-bedded' slabs needing careful shaping; the external angles are often defined with knife-like sharpness using this technique. At Kilcoe, the quoins above the base-batter were dressed with unusually uniform alternating rectilinear slabs. Blocks of sandstone were, however, used for the vulnerable angles of the base-batter. This sharp distinction between the quoining (Chapter 3:e,i) of the base-batter and the superstructure is unusual. At Leamcon, a decorative (?) effect was achieved by using green freestone for the quoins. At Rincolisky, near Kilcoe, the quoins are cut and laid in the same manner as the rest of the facing. Such minor differences reveal the varying preferences of different masonry schools (Chapter 5:e).

The facing stones were laid with equal care on the exterior and interior at Ardintenant, Rincolisky and Kilcoe. In the SRE tower houses, the internal finish is noticeably rougher than the exterior (i.e. Castle Salem).

At Dunmanus, Rossbrin and Dunalong, small stones were carefully laid. Oldcourt in contrast (Pl.16,i) was faced with a mixture of very large, irregular blocks and much smaller stones, creating an untidy effect. Such distinctions may reflect the degree of bedding of the stone as well as the care with which it was laid.

The quality of masonry can therefore be seen to be very varied in the RE tower house. At Leamcon cut oblong blocks were used to create a 'quasi-ashlar'. The superb finish was not imitated because it was not functionally necessary and was very time-consuming to create. The coursing varied sharply at Leamcon (Pl.H). One painstaking mason laid courses of 'quasi-ashlar' while another laid rougher courses of smaller stones in between them. The opposite end of the spectrum can be seen at the fallen RE (?) tower house of Cloghan [24] which was very roughly constructed from small rough stones (Pl.24,i).

Putlog holes were used in most medieval stone buildings (McKenna 1984, 20) and are first seen in Ireland in a twelfth-century Cistercian context at Inch Abbey, Co. Down (Mallory & McNeill 1991, 278). These are a distinctive feature of the RE tower houses (Pl.I). The sockets are usually positioned at the intersections of notional vertical and horizontal lines on the exterior, but the latter alignments are respected with greater precision. There were usually five horizontal rows, each four holes wide, on both the long and short axes. The highest row is normally level with the springing of the barrel vault, and the remainder of the tower is bare. The absence of sockets from the upper part of the exterior means that they would not have been suitable for a scaffold to assist in periodic renewing of the render. They are instead results of the construction process. The cantilevered beams held by these sockets supported the hurdles from which the masons worked. The vertical spacing of the horizontal rows reflects the maximum height to which a mason could work from a single surface.

The masons waited for the new timbers to set in place before transferring their hurdles to the new

work surface. Internal and external work surfaces allowed the walls to be built from both sides until the skewbacks of the barrel vault were constructed. Above that level, internal putlogs show that the walls were built from the interior outwards, presumably for safety reasons. One would therefore expect to see a slight fall-off in the quality of the external facing above that level. No such deterioration is however apparent. It is difficult to see how quoins were accurately positioned where the masons lacked external working platforms. It can only be suggested that the masons became adept at working from the inside out. There are no putlog holes on several RE tower houses where structurally independent scaffolds must have been used.

The cantilevered timbers were immovably held in place by the set mortar. It was therefore necessary to cut them off flush with the wall once the work surface was no longer needed. The stubs eventually rotted, exposing the sockets to view. The cantilevered timbers required no external support of the sort postulated by Marie McKenna (1984, fig.4). This timber-saving method of scaffolding is frequently seen in medieval illustration (Salzman 1952, 321).

The masons would also put in working platforms as and when they were required when constructing the interior. At Kilcoe, for example, massive sockets indicate that a temporary floor was built for the carpenters to work on the roof timbers. At Dunbeacon a temporary floor was put in to assist in the construction of the first floor.

The slabs used for the fabric of Ardintenant were normally no heavier than a man's burden, but heavier and larger blocks up to 1.5m long can be seen in the internal facing. Such stones could only have been lifted into position by machinery, using slings of rope or 'scissors' (ibid., 323). Medieval depictions of the types of crane that could have been used for this purpose are widespread (Coldstream, 1991, figs 47,53,54,60). A rotating crane with a timber yard arm of controllable angle standing in the centre of the building would have permitted the setting of the stones we see. Pulleys at either end of such a boom would have allowed a quarter-ton stone to be moved inwards and outwards to allow its exact positioning.

Leask was the first to observe the difference between the underside of the vaults of tower houses and those of earlier Anglo-Norman castles. The 'native builder almost invariably used mats of woven wicker or basketwork' (more correctly *wattlework*) on which to lay the stones of the vault (Leask 1951, 86). This ubiquitous technique has been observed as far from the Survey region as County Down (Jope 1966, pl.54) and Donegal (Lacy 1983, 355). Compartmentalised or ribbed vaults were apparently never used in Irish tower houses. The use of wattle hurdles reduced the quantity of timber needed in the centring.

Examination of the RE tower houses has allowed some additional details to be recognised. The favoured barrel vault profile at RE tower houses is slightly pointed but nearly 'catenary' (the strongest



possible form an arch can have). Semi-circular vaults are used in the east part of the Survey region. Normally, no evidence for the centring trusses survives because they rested on wall plates but at Oldcourt and Monteen the feet of the trusses were embedded directly into the wall. A similar technique has been observed in Tipperary (McKenna 1984, 34).

The use of separate wall plates eased the removal of the centring trusses. The tower house was probably completed to a level corresponding with the floor of the principal chamber before the vault that formed its floor was constructed. The first step in the construction of the vault was the setting of pairs of corbels in the north and south walls to support two wall plates running the length of the intended barrel vault. The size of these corbels indicates that the centring wall plates were of smaller scantling than the flooring wall plates below. The ends were locked by pre-constructed sockets against the corners. The long-axis walls of the tower rose independently of the vault above the springing, there is no clear boundary between the vault springers and the wall fabric upon which the springers of the vault rested. The east and west (short-axis) walls were built with offsets corresponding to the profile of the intended vault. The construction of the vault centring could then commence: this was a task that was as demanding as building the vault proper.

Marie McKenna (*ibid.*, 69) has identified several samples from centring mats in Tipperary as hazel. Surviving centring at Ross Castle, Killarney, has also been demonstrated to be woven from coppiced hazel and the recently reconstructed vault was turned on a replica 'wickerwork' mat (OPW Visitors Guide). Clear impressions at Kilcoe show that a single curved shell of woven hazel of immense flexibility and strength was stitched together from hurdles about a metre wide (Pl.J). In each hurdle, the lengthwise wands were woven in at an angle, rather than being parallel to the withies. This allowed new wands to be continually added as the previous wands ended. A series of hurdles slightly longer than the barrel vault was produced by these means. The trusses and offsets were completely concealed before the first stones were set.

The centring was probably only 'struck' after several months had elapsed to allow the mortar to set. Wedges under the feet of the trusses could then be knocked out, allowing the centring to fall free. At Ardintenant the centring supported the full weight of the vault and the masons built triangular 'gables' which were structurally separated from the underside of the vault by gaps. This allowed the withies and trusses to be removed. The gaps were subsequently filled in with masonry. This technique has also been observed in Tipperary (McKenna 1984, 37). In most RE tower houses the 'disposable' hurdle mat was trapped in position and was rendered over. The technique has been observed at Castle Ward, Co. Down (Jope 1966, pl.54) and was the usual way of concealing the hurdle mat. It may have been left bare on occasions as a decorative effect.

To create a level surface for the floor of the principal chamber the spandrels between the bare vault and the surrounding walls were filled with finely broken-up stone or puddled clay. At Kilcoe the

spandrels of the vault were infilled with small loose stones to reduce weight. A layer of clay was then spread over this surface. A rough layer of slabs was embedded in this layer. The uneven surface of the slabs was probably covered by a layer of mortar, periodically renewed.

At Dunworley [74] (Salter 1993, 128), Dunanore and Dunlough a simpler, more economical means of vault construction was used. Two free arches resembling 'slices' of a barrel vault were built. The gaps between the arches and the walls created were lintelled over with large overlapping slabs. This 'economy' vaulting was much lighter than a complete vault. A similar technique was used to build vaults that 'stopped short', thus permitting hatches to be built in the 'gap' (Kilcoe, Oldcourt, Monteen (Pl.D). 'Service chutes' passing directly through a solid vault were probably 'cast' with shuttering rather than cut through later (Kilgobbin, Downeen, Dunmanus).

#### iv. Timberworking

Floors and roofs must have quickly disintegrated once the tower houses of the Survey region were abandoned in the Seventeenth Century. Despite this much can be understood from the masonry provisions for timberwork. The speed of this process of decay is about 40 years, as the case of Reenadisert House shows. Although universal destruction of RE tower house gables means that little evidence for roof construction survives the picture is not entirely bleak (see below).

Excavations have revealed the immense scale of the wattlework industry in Cork and Dublin (Donnelly 1994, 226) but upstanding Irish medieval timber work is vanishingly rare. The roof of Dunsoghly Castle, Co. Dublin has therefore provided inspiration to restorers across Ireland. Floors are slightly better represented. They survive wholly or in part at Clara Castle, (McKenna 1984, 22) and Ballybur, Co. Kilkenny as well as Ballykeerogue, Co. Wexford (Jordan 1991, fig. 3.24).

The floors seem to have been built without even the simplest joints as in Lecale and Tipperary (McKenna 1984, 23). The timbers were simply lain on top of each other like children's blocks. The surviving sockets and corbels show that Kilcoe had a first floor of exceptionally robust design; it incorporated a central beam 8.5m long and 0.38m by 0.33m in section which must have weighed several tons. The tree that provided this timber grew in dense forest that had been undisturbed for centuries. A rare survival in Wexford shows that the wall plates were subdivided into shorter lengths, butt-jointed over the corbels (Jordan 1991, fig. 3.24). The joists at Kilcoe were at least 0.20m in scantling and were probably lain across the wall plates and central beam without joints or any other fastening, as at Clara Castle. Surviving oak joists at Clara are c.0.33m in section and very closely spaced (Leask 1951, 82-3; McKenna 1984, 22). At Ballybur the surviving floorboards were secured by oak pegs and then covered by a layer of earth (OPW guide, Ross Castle, pers. comm.). The joists are 0.38m thick (Fleming 1909, 176).

The timber floors of the RE tower houses were probably not assembled in position until absolutely

necessary, so as to permit the free use of the putative central crane. At Kilcoe the task of positioning the first-floor central beam was carefully planned with the co-operation of the masons; one of the sockets was made higher and much deeper than the other to allow it to be manoeuvred into position. Rotten parts of floors constructed in this manner could be removed and replaced without difficulty. It seems that the builders had a realistic appreciation of the life-span of floor timbers in the damp and still environment of a tower house.

Oak was the favoured structural timber throughout Ireland. The predominant tree in the lost forests of South-West Ireland was the Sessile Oak (Larner 1992, 2) and this no doubt provided lesser structural timbers. Pedunculate oak or mature timber forests of some other trees must have been readily available nearby to provide the larger timbers, but it is still uncertain whether pedunculate oak is native to Ireland (McCracken, 1971, 18).

Except at Kilcoe, central reinforcing beams were not used. Unforeseen problems occurred at Rincolisky because, although it spanned the same width as the Kilcoe floor, no central beam was provided; small corbels were later inserted to try and arrest the sag that resulted. Unusually, at Downeen the timber second floor rested on offsets in the corners of the wall as well as normal corbels.

If the surviving gables of contemporary churches in the Survey region are a legitimate guide to the roof pitch of RE tower houses (Chapter 3:d) they would have differed from Ulster tower houses where low pitches were favoured (Jope 1966, 232, fig. 151). Certain roof timbers are likely to have been present given the limited range of techniques for building a large timber roof: there are wall plates, trusses, common rafters and purlins. The techniques used for floor construction imply that the roof carpentry was robust rather than technically sophisticated.

The walls were at their thinnest at the level of the wallwalk. The minimal available area at the top of the wall permitted a contact point between the roof and eaves only c.0.3m wide (Kilcoe). This single fact allows a chain of deduction about the structure of the roof. The trusses of the roof must have rested or been morticed into two wall plates that ran the length of the eaves (corbels for wall risers are unknown in the Survey region, ruling out a hammerbeam technique). The wall plates evenly distributed the thrust of each truss foot against the wallwalk saddle stones. For compactness, the common rafters must also have rested on the wall plates so that the outer margins of the trusses and common rafters presented a flush surface for the roof battens. Stub purlins (horizontal timbers joining the trusses) were presumably embedded in the sides of the trusses. Slate is documented as a means of roofing of tower houses in 1547 (McKenna 1984, 12) and slates (more accurately described as shale) were found by the author on the floor of the principal chamber at Kilcoe (Fig.n). This compact method of roof construction meant that the lowest row of slates directly overlapped the saddle stones minimising wind damage and damp penetration. Space provision ruled out the use of thatch; slates or shingles were most suitable for tower houses (*ibid.*, 12), although thatch is

documented for ancillary buildings and churches (Leask 1944, 20; Stally 1987, 48).<sup>e</sup>

Large round holes indicate that the 40 complete slates found at Kilcoe were held in place by timber pegs rather than nails. A minority had two holes, and a couple, three (Fig.n,ii). The triangular arrangement of the holes shows that the third pegs passed below the battens; this allows the width of the battens (4cm) to be reconstructed. Some of the largest slates were also held in place by mortar or 'torching'. The size and proportions of the slates varied greatly, where the slates diminished in size towards the ridge. Most were between 13cm and 20cm wide but length was very varied. The length measured from the 'tail' (end) and the 'nail' (hole) varied from 20cm to more than 61cm. The majority of surviving slates were between 24 and 32cm in length. This variation shows that the process of grading the slates was used; the largest being at eaves level and a steady diminution occurring towards the roof ridge. In size variation they resemble an English assemblage from the Austin Friars, Leicester (Mellor & Pearce 1981, 67-8) and this technology is presumably an introduction rather than a spontaneous invention.

Door and window shutters also demanded timber. At Kilcoe, the shutters were secured by timber drawbeams. By placing the drawbeam socket at an angle to the door jambs the builders helped give it a wedging action. It is implicit that these features required a more skilful level of joinery than the floors and a degree of specialisation among the carpenters is indicated. The possibility that the roofs were more elaborate than the floors therefore cannot be ruled out.

In the late medieval and early modern periods, Irish doors and shutters pivoted on spudstones (Leask 1951, 97) and this technique, done without ironwork, was nearly universal in the RE tower houses. The doors consisted of a single upright timber stile, with cylindrical ends to fit the spudstones. Side rails, on which the vertical planks of the door were nailed or dowelled, were attached to the stile (ibid.). The pivot socket of the ground-floor doorleaf at Kilcoe is no less than 9cm across which gives some idea of the weight it carried.

#### v. Types of internal and external finishes

There is a complimentary bardic reference to 'smooth-walled castles' (Simms 1978, 90) and some RE tower houses were rendered over with hard mortar. These finishes often survive in part (Dunmanus, Rossbrin). Internal mortar renders were also occasionally applied (Kilcoe). Many RE tower houses display no surviving evidence of an external coating; but the past existence of a harling of plaster or cob cannot be ruled out, this was recently illustrated at Doonmacpatrick (Head of Kinsale) where a soft harling at the base of the tower house was exposed by mechanical diggers (Pl.K). It had only survived as a result of being buried.

Surviving areas of flush pointing in hard mortar survive on the more sheltered aspects of Kilcoe and this was probably the usual means of finishing the LRE and FRE tower houses. A deeper coat was

applied on the SRE tower houses, hiding the cruder coursing that is often a characteristic of these buildings. At Dunmanus this is not an original feature because it covers the blocking of the hoarding sockets in the parapet.

Floors of mortar were used to pave intramural passages and sometimes the ground-floor chamber. At Oldcourt the ground-floor chamber surface (an unusual survival) was repeatedly renewed with white mortar.

At Downeen an internal mortar render was applied before the construction of the floor, but at Oldcourt the render on the south wall of the solar was applied after the timber floor was built. Renders can therefore provide useful information about the position and thickness of timber floors.

An elegy of the MacCarthy Muskerry praises the number of 'whitewashed edifices' he held (1583, MacCarthy 1922, 192) and it is probable that this was the usual means of finishing tower houses, or at least the condition aspired to. On a coastline, there were obvious practical benefits to whitewashing tower houses, so that they could serve as beacons to boats (Chapter 6:b,ii).

### 3:f Regularity/proportions/units of plan

Documentary evidence for tower house design is limited to the Lordship of Ireland. There is no documentary evidence describing the construction of tower houses in the Survey region and only a single documented attribution (Nicholls 1993b, 193). A contract for a similar structure survives from the Lordship of Ireland (McKenna 1984, 11) and this is our chief evidence for how such matters were arranged. Despite this vacuum much can be inferred about the masons' working practices through the study of the tower houses and other buildings that they constructed. It is not overstating the case to say that a medieval building industry existed to provide tower houses (Donnelly 1994, 216).

The sum of evidence demonstrates that each RE tower house was built to a recipe, using much the same ingredients which could be varied according to taste and which only slowly changed. This does not of itself prove that detailed designs were used, but divergences from this recipe could only be accommodated with difficulty. The construction was probably supervised by a foreman or 'headmason' supervising a *corvée* of quarrymen, wallers and banker masons. The carpenter may have been on an equal footing with him, with his own team. The Ormond contract stipulated that the masons and carpenters have their work checked by their peers (*ibid.*). The client set out the material and basic layout of what is almost certainly a tower house with measurements in feet, but the details were left to the mason. It is possible that these sort of contracts were used in the Gaelic areas.

#### i. Geographical orientation

Although most RE tower houses were simply oriented on the strike of the rock compass observations show that some RE tower houses closely respect the geographic north (Fig.f, ii,iv), such as Kilcoe (3.5° NNE), Kilgobbin (10.5° NNE) and the GE tower Kilcrea (11.5° NNE). In the former instances the tower is definitely not aligned to the strike. Other orientation techniques must have been used. One method would have been the observation of noon and the direction of a shadow cast by a pole.

#### ii. Units and setting-out formulae

Documentary evidence for the use of the Statute foot is hardly remarkable (see above and O'Callaghan 1981, 21) and it has recently been noted of the dimensions in the tower houses of Wexford that they:

'frequently convert to exact imperial units or fractions of these; i.e. three, four and six inches based on the English foot of 0.3048m. It would appear that the English foot was the standard measurement in use, and that it and fractions of it; i.e. quarters, thirds and halves were used for most of the layouts for which we have evidence' (Jordan 1991, 85)

Without documentary evidence or the discovery of measuring instruments labelled 'for building purposes' it is inherently impossible to 'prove' that a particular unit was used to build in an ancient building. The determination of ancient units of measurement is fraught with pitfalls for the careless

researcher, but a recently-written computer program (Bettes 1991) has allowed a degree of objectivity in the recognition of the units used in many of the extant tower houses in the Survey region. The precise measurements that can be obtained from tower houses are very suitable for an exercise of this sort. The measurements have been analysed using the MEASURE program written by F. Bettes, because this can be run on a simple personal computer.

This exercise has been as informative about the correct use of such software as it has been about tower houses and there is need for caution in the interpretation of the results. Despite this, the technique has however undoubtedly permitted a more detailed understanding of tower house design than would otherwise have been possible.

The recurrence of dimensions at different RE tower houses is frequent. The most notable of these are a 5.55m dimension known to occur in four ground-floor chambers (Fig.m, i,ii) (Kilcoe, Rincolisky, Dunmanus and Dundanier), the use of a hall width of 6.5m at Kilcoe and Leamcon and the shared external dimensions of Dunalong and Dunmanus. Another clue to the size of the unit is the uniform width of steps in the RE tower houses which at Kilcoe average 0.261m in width. The widespread occurrence of lamp recesses c.0.78-80m wide in the RE tower houses is another clue to the existence of a regular unit. Plan ratios of exactly 4:5 at Kilcoe (Fig.m,ii) and Ardintenant are examples of proportional occurrences amongst the RE tower houses of the Survey region that imply the use of measurements.

Any identified unit that was not the statute foot could potentially be an important dating tool (assuming that similar values indicate a similarity in date).

All tower houses in the Survey region which are sufficiently well preserved to yield six or more independent dimensions were analysed. A clear pattern rapidly emerged. To avoid any ambiguity, only the clearest examples are cited here. They had to meet the following criteria:

They had to have a significantly lower variation in ten thousand (Var 10000) than the other figures and divides three or more of the sample dimensions of the tower house into whole numbers.

The program can search for fractions of units as well as whole ones; those selected were halves (0.5) and quarters (0.25). The fractions were sometimes dropped to obtain a clearer result, but otherwise the parameters were not varied. Because it seemed likely that a foot or something approximating to it was used, the search was set between 0.2 and 0.4m. There was a high level of agreement in the several of the results, but the temptation to interpret less clear results in the light of those figures has been resisted. Several tower houses did not produce clear results but have subsequently been demonstrated to respect units by other means (see above); these are not given here.

In order to demonstrate the correlation between entrance layout and unit type, it is clearer to deal with all types of tower houses in one table.

Table 2  
Unit used in order of size (in centimetres)  
'Gaelic foot'

		cm
FRE	Leamcon	26.30
SRE	Dunmanus	26.43
LRE	Timoleague	26.50
LRE	Kilgobbin	26.60
GE?	Raheen	26.65
LRE	Downeen	26.68

Statute foot

		cm
GE	Kilcrea	30.2
GE	Carriganacurra	30.25
SRE	Castle Salem	30.34
LRE?	Reenavanny	30.43
GE	Castle Donovan	30.47
GE	Ballinoroher	30.60
LRE	Monteen	30.60

The statute foot appears unambiguously in both RE and GE tower houses but five RE tower houses produce a unit averaging 26.4cm, 4.08cm shorter than the present day foot. The unit corresponds to the length of a medium-sized adult male foot (the author's foot being 27cm long). The author has coined the term 'Gaelic foot' (GF) to describe this unit. An apparent unit of 21 'Gaelic feet' (5.544m) is called the 'Gaelic long unit' (GLU). The identification of an otherwise unknown unit is obviously problematic, but such a unit would only have been mentioned in technical contexts which fall outside the ambit of the bards, annalists and religious who were responsible for the majority of surviving Gaelic documentation.

A good, though not perfect correlation between the RE tower house and the 'Gaelic foot' is apparent, but two were certainly set out with the statute foot (Castle Salem and Monteen). The computer technique is not precise in its determination, as the variety of statute foot variants demonstrates. It is probable that the apparent 'spread' of 3mm in the 'Gaelic foot' is at least in part a result of statistical blurring and the limitations of the source measurement. In practice however, it can be assumed that



the individual rules of masons were far from perfectly uniform. Given the lack of any known regulatory body, the relative uniformity of the GF is impressive.

Round numbers of Gaelic feet were used in the determination of most of the dimensions at Timoleague (Fig.l), but whole units were more usually restricted to the main dimensions. The position and form of lesser features were decided as they were built. Important features are however remarkably constant across all RE tower houses (i.e. the width of the raised entrance). Drawings of plans are believed to have been used to design the tower houses as in Wexford (Jordan 1991, 18) because the use of such designs was the case elsewhere in the British Isles (ibid. 1990, 51).

## ii. The regulation of construction

Mistakes in construction can illuminate the thought processes that went into building a tower house. Castle Salem was commenced with end walls and entrance walls of equal thickness. The builders realised on reaching first-floor level that the entrance wall was insufficiently thick to contain continuous spiral stairs and intramural galleries. When the builders reached the level of the first floor, additional masonry had to be added against the internal face of the ground-floor end wall (Fig. g, vii) to support a thicker wall above that level. This reveals that the mason in charge had not designed the tower house in much detail.

Intended features cannot always be readily distinguished from such corrections. At Rincolisky a horizontal internal jetty runs along the end of the ground-floor chamber above the entrance passage. Is this a correction of a similar error to the one that occurred at Castle Salem? The thickness of the entrance wall at first-floor level was increased to contain the intramural stair. It could however be argued that the jetty was a structurally adventurous means of maximising the volume of the ground-floor byre.

The conflict between the need to house straight intramural stairs and provide solid support for the vault was solved in the LRE tower houses by 'over-engineering' the long-axis walls (Fig.f). The elegant solution to the stair problem in the FRE tower houses permitted thin long-axis walls. It must not therefore be assumed that thick walls = more resources.

The entrance layout of Dunanore illustrates the difficulty tower house masons had in innovating. The 'standard' FRE tower house 'blueprint' was clumsily modified to permit stair access from the ground and there can be no doubt this is how the tower house was built. This illustrates very clearly the existence of a consensus of opinion about tower house layout. Dunanore is included in the raised entrance category due to its obvious affinities, although it is technically a GE tower house.

Rulers and plumb-lines are mentioned in a bardic poem of c.1300 (Cairns 1987, 19) and these were no doubt the instruments used to obtain a rectangular ground plan. The departure from such an ideal

is an indicator of the builders' precision of execution. Irregular plans seem occasionally to have been intended (Rossbrin) but this is so unusual that a systematic comparison of 'irregularity' can be made by measuring the degree to which the masons achieved the feat of building opposing walls of equal length.

The dimensions in the table below express the disparity in length between opposing sides of the chamber in the RE tower houses. These errors are expressed as percentages rather than absolute dimensions. The left and central columns show the differences between opposite sides for the long- and short-axis sides of the chamber. Increasing error is expressed by showing the longer of the two dimensions as a percentage of the shorter dimension. The greater the divergence, the more the figure exceeds 100 per cent. The right-hand column gives an average reading equating to overall irregularity. The tower houses are ordered by increasing irregularity.

Table 3  
The disparity in length between opposing sides of the ground-floor chamber

		Short axis %	Long axis %	Average %
LRE	Kilcoe	100.00	100.12	100.06
LRE	Ardintenant	100.00	100.14	100.07
SRE	Dunmanus	100.00	100.36	100.18
FRE	Rincolisky	100.36	100.53	100.445
FRE	Leamcon	101.00	100.85	100.925
SRE	Castle Salem	102.03	100.29	101.16
SRE	Oldcourt	101.86	100.76	101.31
SRE	Dunalong	102.21	100.94	101.575
FRE	Rossbrin	104.34	100.00	102.17

The near-identical precision of construction at Ardintenant and Kilcoe is additional confirmation of strong links. The slightly greater irregularity of Rincolisky may reflect the abilities of a different 'school' of masons. It is therefore possible to use this method as an objective means of measuring building regularity and even to use it as an additional method of determining relationships.

Only Rossbrin seems to have a plan that was intentionally irregular (good regularity being achieved for the long axis), but a wide range of abilities is apparent, even between those tower houses that parallel each other in other respects. An equation between irregularity and the SRE tower house is apparent. The probable chronological significance of this is discussed in Chapter 5:e.

Internal dimensions of the ground floor recur sufficiently frequently to suggest that a broad consensus existed. The 'GLU' was used for either axis of the chamber (Fig. m). As a general rule, these internal dimensions were the most important in determining the eventual size of the tower house but the dimensions at the top of the base-batter were also independently determined in several cases. The proportions of the principal chamber were also a determinant in the size of the plan (see below).

Builders have often used simple numeric ratios to set out a plan quickly (Coldstream 1991, 37) and these ratios were used in the Survey region (Table 4 below). At Kilcoe the ground-floor chamber is 7.85m by 5.55m (1 GLU), an exact 1:1.414 ratio or the *square root of two*. This formula could be expressed by geometry or numeric ratio. Five RE tower houses may have been geometrically set out with this ratio in either the ground-floor chamber or the principal chamber and this would account for slight errors. Only Kilcoe and Leamcon are exact expressions.

The usual *square root of two* series are 5:7:10, 12:17:24, 70:99:140 and multiples of these, with the numbers doubling every time (Coldstream 1991, 38). The 70:99:140 formula is the most accurate of the three and would achieve the level of precision seen at Kilcoe.

Table 4  
The use of ratios (in bold) as a means of setting out the ground-floor chamber

	actual ratio	ratio employed
(SRE) (Dunalong first floor)	(1:1.142)	
LRE Kilgobbin ground floor	1:1.207	(5:6)
LRE? Farranamanagh	1:1.268	(c.4:5)
SRE Dunmanus	1:1.318	
FRE Rincolisky	1:1.344	
SRE Oldcourt	1:1.406	(1:√2)
LRE Kilcoe	1:1.414	(1:√2)
(FRE) (Leamcon third floor)	(1:1.415)	(1:√2)
FRE Dunlough	1:1.503	(2:3)
LRE Ardintenant	1:1.572	
LRE? Reenavanny ground floor	1:1.572	
LRE Timoleague	1:1.602	
FRE Leamcon	1:1.644	

The scatter diagram of external dimensions (Fig.e) shows very clearly a concentration of RE tower house plans at c.10 x 8.5m which is unlikely to be the result of chance. The 1:1.414 ratio was not favoured for external dimensions but the use of a 4:5 ratio connects Ardintenant, Kilcoe and

Reenavanny. Because the favoured short-axis dimension was c.8.5m, the smaller tower houses tend to have 'squarish' plans. It will be seen that most plans tend towards a set ratio, so it is best not to make too much of them unless they are exact. It therefore seems that in many cases the external dimensions are not 'independent' but derive from internal dimensions. The tower houses were designed 'from the inside out'. The builders of the LRE tower houses had the ability to record and recalculate random as well as regular ratios. These sometimes respect whole numbers of GF (Ardintenant 40 x 32GF) but the irregular internal ratio of Ardintenant and Reenavanny (1:1.572) seems to have been deliberately repeated despite the differences in size.

The use of the GLU is particularly well illustrated at Dunmanus (Fig. m,i) where the long axis of the ground floor chamber is 1 GLU and the width of the entrance passage was determined by subtracting half a GLU from the short-axis dimension of the chamber which is 16 GF. The GLU was then multiplied by the square root of two to create the external width of the plan.

Some major measurements had to be determined in advance of construction if the different parts of the tower house were to fit together. It is unsurprising that the more regular tower houses show the clearest use of whole units, set ratios and, implicitly, design. The builders of Leamcon seem to have decided on the overall size and shape of the tower house plan from the 1:1.414 proportions of the principal chamber; this can only have been done before construction commenced. In the same way, the height and pitch of the base-batter had to be allowed for in determining the external dimensions.

Perfect right-angles eluded the masons. At Kilcoe, otherwise so precise, the diagonal measurements of the ground-floor chamber differ by c.0.2m and Ardintenant's ground-floor chamber was little better. This supports the theory that the architect of Kilcoe worked with an arithmetical formula rather than by geometrical expression.

Notebooks were no doubt needed to record the numeric formulae and tables of dimensions but scale drawings were probably unnecessary to build RE tower houses. These notebooks may have been assembled and acquired by masons during their working careers, perhaps being passed on to other masons on death.

The building of walls many metres high with constant pitch cannot have been an easy task. The precision of the quoins in the RE tower houses can best be appreciated by standing at the base of each angle and looking up; the care put into their dressing and setting (Chapter 3:e,ii) was not just for aesthetic purposes; they were a means of regulating construction. The headmason used these sharply defined quoins to control the straightness and pitch of the walls by sighting from below. A string could be stretched between them once a new set of quoins had been positioned. The wallers could then lay a new lift of masonry between the quoins. This technique was not used in all RE tower houses.

The entrance wall was the thickest wall in the FRE and SRE tower houses. The long-axis walls were of similar thickness, while the end wall was usually the thinnest of the four walls. Do the wall thicknesses relate to layout? Could this relate to relative chronology? (Chapter 5:e). The table below displays the relation between the two.

**Table 5**  
**Disparity between the thickness of the ground-floor entrance wall and the end wall**

	Entrance-wall (m)	End-wall (m)	Difference %	Type
Rincolisky	1.72*	1.73	- 0.6	FRE
Dunmanus	1.63	1.59	+ 2.5	SRE
Rossbrin	1.93	1.80	+ 7.2	FRE
Dunlough	1.49	1.32	+12.8	FRE
Leamcon	1.81	1.57	+15.2	FRE
Castle Salem	1.97	1.68	+17.2	SRE
Oldcourt	2.02	1.695	+19.2	SRE
Dunalong	2.02	1.54	+31.2	SRE

\*1.92 at first-floor level

The factors governing horizontal design are dealt with above but it is much less straightforward to discover how vertical measurements were regulated. It is probable that these were equally closely regulated. It is not however possible to make more than general comments, due to the lack of survey data.

The horizontal termination of the base-batter probably acted as an important datum in the construction of tower houses and the flat floors of some window embrasures were probably used as reference points or 'temporary bench marks'. It can be safely assumed that floor heights were standardised in the RE tower houses; the height of the ground-floor chamber is an example of this (Chapter 3:a,i and ii).

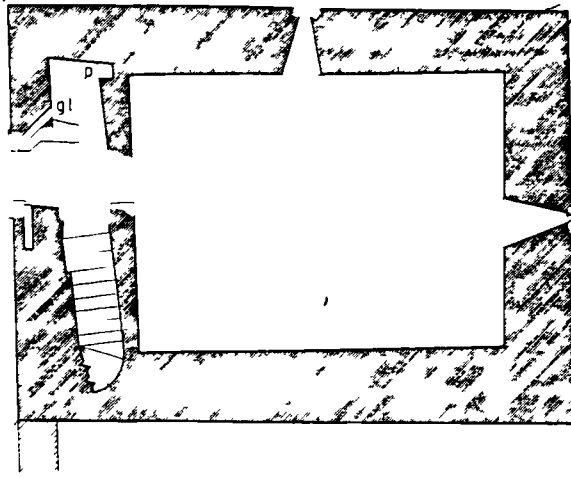
Vertical dimensions had to be carefully controlled when straight intramural stairs were present. The main intramural stair was pitched so as to reach the hall at the correct point relative to the apex of the second-floor barrel vault. A slight 'kink' in the ceiling of the stair at Kilcoe shows where a minor adjustment in the pitch had to be made.

At Kilcoe, checks made with a modern level show that the east and west wallwalks differ by less than a centimetre in height although separated by over eight metres. The north and south wallwalks differ in level by only two centimetres.

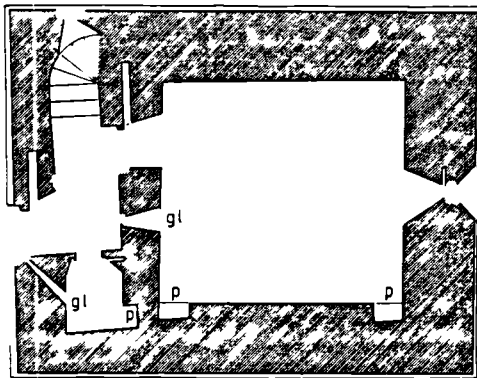
Many medieval illustrations (Coldstream 1991, Fig.10) show a simple hand-held instrument with a central plumb-bob. This was the *plumb-rule* (Salzman 1952, 20), used for local levelling of stones as they were set. This was presumably used in tower house construction, because it was a standard part of every builder's kit throughout Europe. Such an instrument was only capable of levelling over short distances. Much less seems to be known about the methods used by medieval architects to level over distances, perhaps because the process was too unfamiliar for illuminators of documents to understand. The extraordinary precision of levelling seen in the wallwalk at Kilcoe suggests, however, that a more elaborate instrument than the plumb-rule was used. No evidence survives except that the method used was very precise. In classical times builders used Vitruvius's *chorobate* for major projects (Adam 1986, 18). This 'artificial horizon' consisted in essence of a horizontal canal containing water, formed from a single timber with sights at either end. Such an instrument in principle would have been very simple and may have been mounted on a pivot in the centre of the tower house. It would have allowed the headmason to accurately mark the levels to which the wallers should build; timber markers could be used for this purpose.

The construction of vertical (usually internal) wall faces were no doubt controlled by plumb-bob. At Kilcoe the north-south width of the principal chamber varies by only 3cm over a rise of 6m.

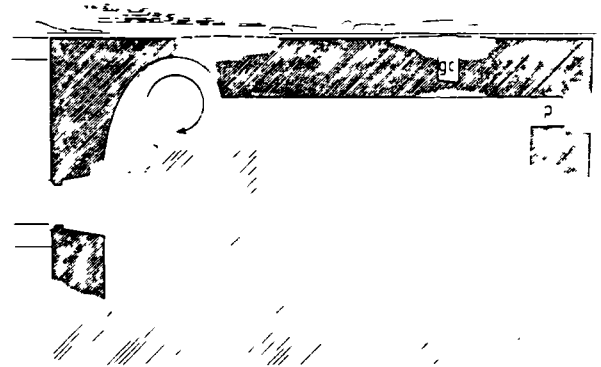
Most RE tower houses had pronounced base-batters and their superstructures were normally subtly battered. Angled pieces attached to plumb-rules may have been used to control batter, used in conjunction with the careful sighting of quoins, the threat of 'twist' could be averted. Base-batters usually have a single horizontal upper margin. Where the site was extremely uneven at Dunmanus, the exceptional decision was made to put a 'step' in it. The difficulties of constructing a battered base on an uneven site to create a preset dimension at the top of the base-batter seem immense. It is likely that the positions of three of the angles were only set after one angle and adjacent walls had been built up to a level corresponding to the highest part of the site.



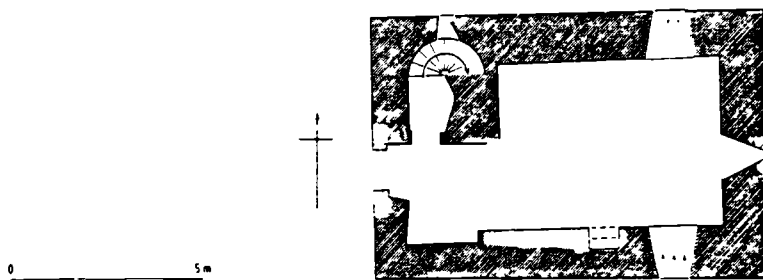
i) Ballynacarriga



ii) Ballinvard



iii) Coolnalong

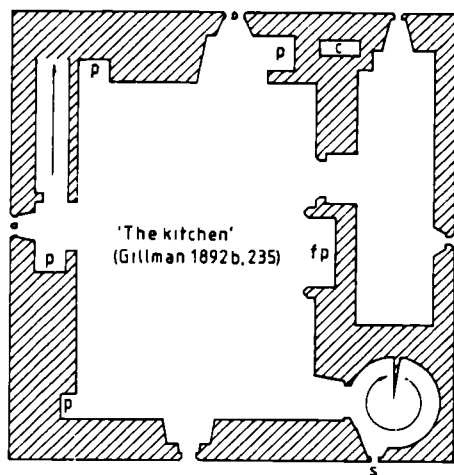


iv) Derrylemlary

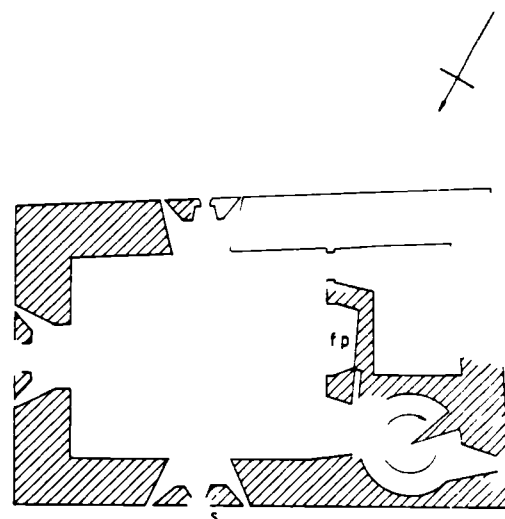
**Figure o**

Examples of the GE ground plans:

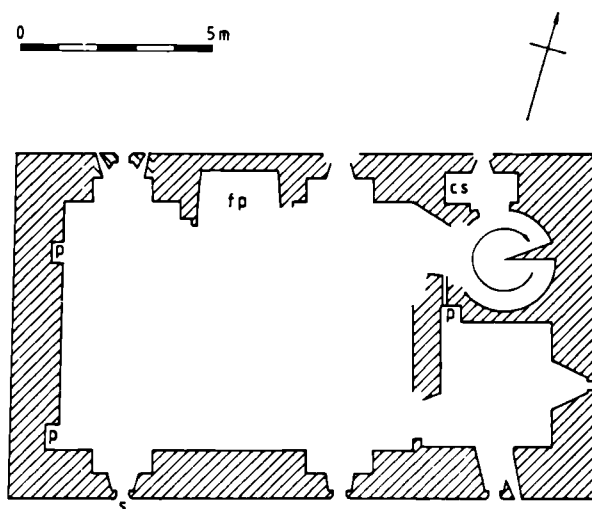
i) Ballynacarriga, ii) Ballinvard, iii) Coolnalong, iv) Derrylemlary



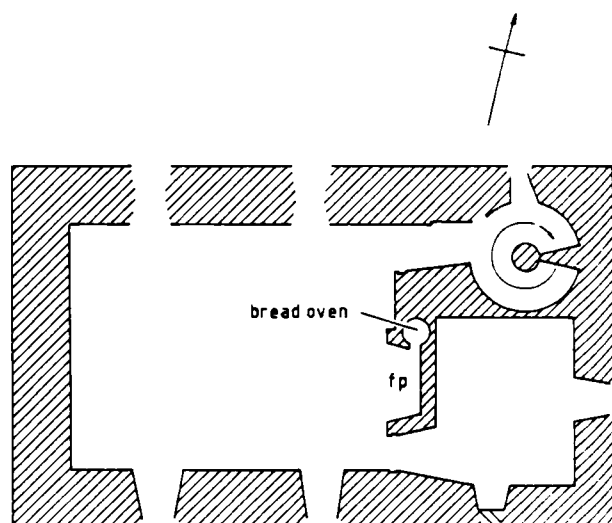
i) Cloghda: second floor



ii) Castle Donovan: first floor



iii) Ballinoroher: first floor



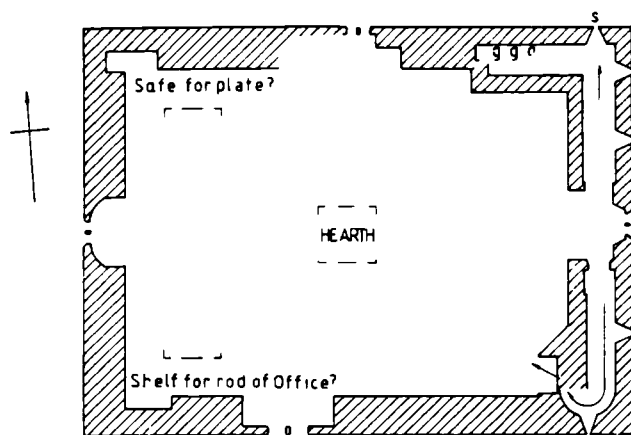
iv) Togher: first floor

### Figure p

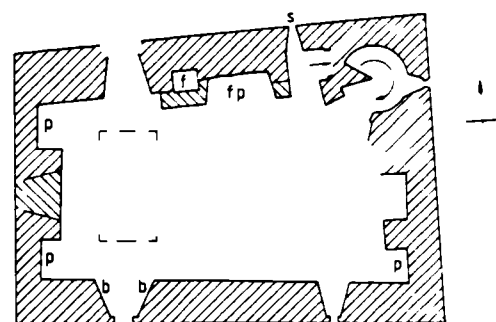
The kitchen/ward chamber in the GE tower house:

- i) Cloghda: second floor, ii) Castle Donovan: first floor,
- iii) Ballinoroher: first floor, iv) Togher: first floor





Kilcrea: fourth floor



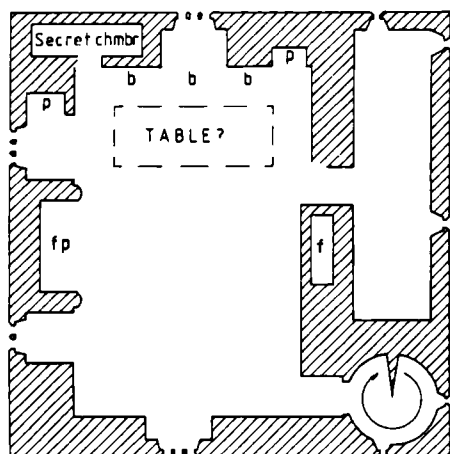
Carrignacurra: third floor

**Figure q**

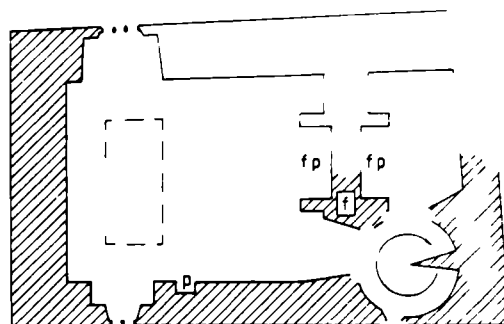
The 'communal' principal chamber in the GE tower house:

i) Kilcrea: fourth floor, ii) Carriganacurra: third floor

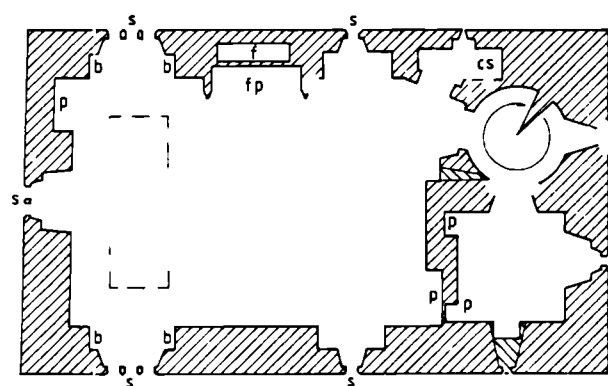
0 5m



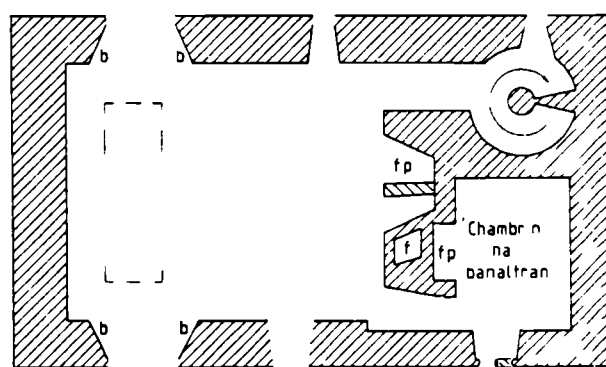
Cloghda: third floor



Castle Donovan: second floor



Ballinoroher: second floor



Togher: second floor

**Figure r**

The principal chamber in the socially segregated GE tower house:

i) Cloghda: third floor, ii) Castle Donovan: second floor,

iii) Ballinoroher: second floor, iv) Togher: second floor

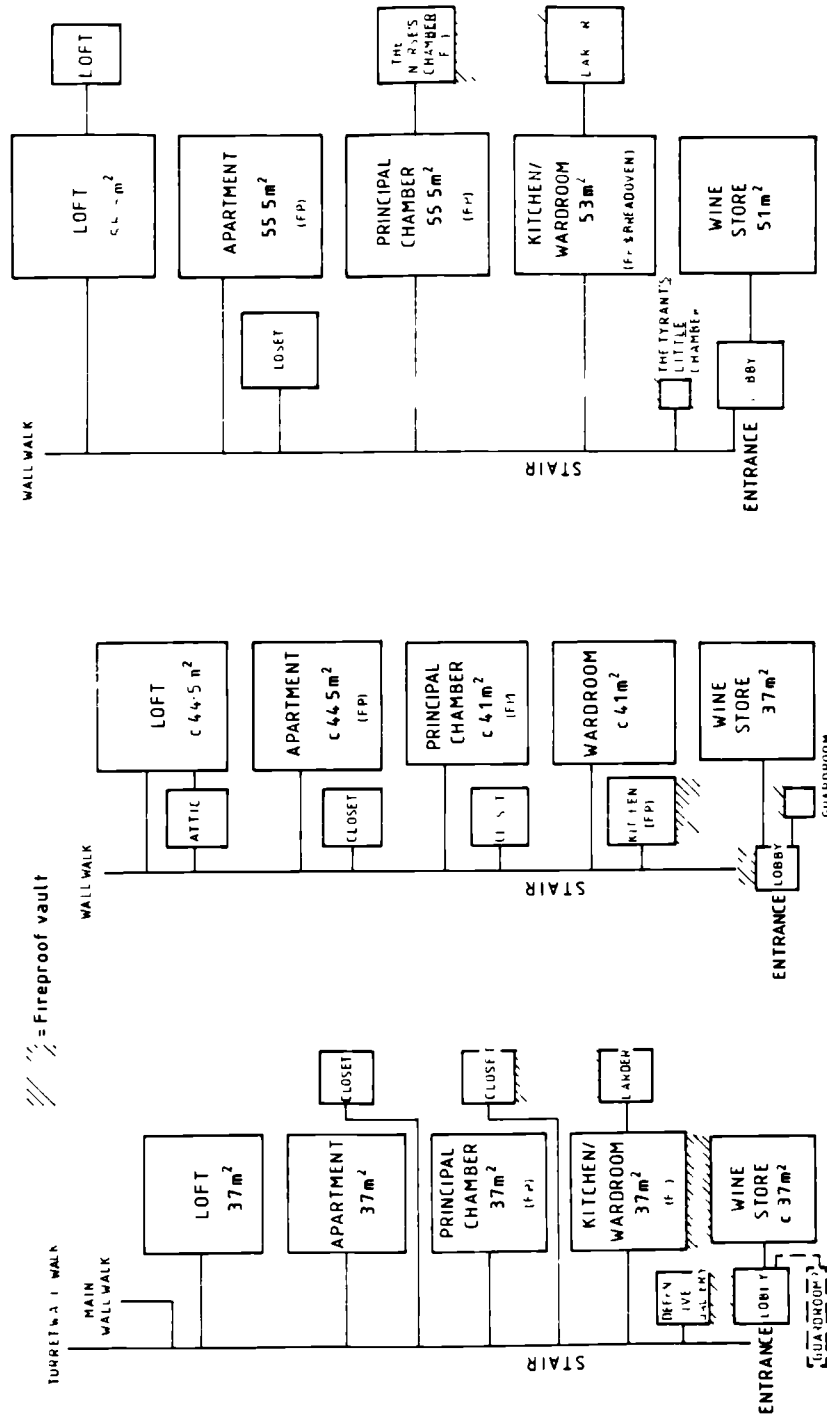


Figure 5

Examples of GE internal layout: i) Castle Donovan ii) Ballinvard iii) Togher



**Plate I**  
Cloghda's ground entrance



**Plate M**

**Raheen: 'Inverted V's'**





**Plate N**

Carriganacurra: 'bartizan'



**Plate O**

Cloghda: fireplace



**Plate P**

Ballinoroher: boulders in base





**Plate Q**

Raheen: pecked ornament



## CHAPTER 4: THE GROUND ENTRANCE TOWER HOUSE

### 4.2 The ground and first floors

These tower houses are distinguished by a single entrance normally approximately central to one of the short-axis walls, usually the west. They fall into two categories; the vaulted, where the vault was usually at second- or third-floor level (this category includes two instances of double vaults) and the unvaulted, where all the major floors were of timber; the stone spiral stair was never dropped as it was a vital fire-escape. The ground floor is typically a low dark, dank, space, often floored by the virgin rock. It normally possesses at least one loop, but is otherwise featureless. A single spiral stair usually ran uninterruptedly from near the ground to the wallwalk (Fig.0).

The GE tower houses had a major weakness in that attackers could easily reach the upper floors once the foot of the spiral stairs had been gained; considerable ingenuity therefore went into designing lobbies behind the entrance where an attacker could be 'contained'.

The ground-floor chamber's vulnerability in unvaulted GE tower houses was well understood. The entire house would act as a chimney and burn out should a fire be started in it. The builders of Castle Donovan [4] compromised by having a vault at the level of the first floor. This fire barrier protected the timber floors above. The destroyed tower house at Carrighnassig [45] was apparently of this layout but conditions were made intolerable for the defenders when the Planter attackers in 1642 maintained a fire in the ground floor chamber for days (MacCarthy 1922, 124). Such resolute and remorseless tactics were exceptional.

In the GE tower houses, <sup>the</sup> chambers, (except the ground floor,) were usually entered directly from the large spiral stair (Fig.0). The intramural passages were not required for access and could perform other roles. Kilcrea [30] and Carriganacurra [32] are exceptional among GE tower houses in that the spiral stair is interrupted at the level of the principal chamber for defensive reasons.

The ground-floor chamber is lower and occupies less of the plan area than in the RE tower houses. It could be by-passed by any intruder and the ceiling was therefore placed at a 'normal' level. The complexity of the lobby (Fig. 0,ii) meant that the chamber could not readily be used as a byre. Fireplaces and garderobes are however absent, making domestic occupation improbable. It seems to have had a more convivial purpose. An anecdote about the chieftain of Togher [2] (MacCarthy 1922, 134) relates how he poured barrel loads of wine into the River Bandon, suggesting the presence of a wine cellar at Togher, an appropriate use for this chamber. In 1642 1,000 barrels of wheat were found after the taking of Barnahely, a tower house in East Cork (Power 1993b, 221), this indicates another use for this chamber. The chamber sometimes served an important defensive function (Ballinorohor

[28], Kilcrea [30]) but the first floor usually served this role.

The 'two-cell' interiors of unvaulted GE tower houses were divided into sets of large and small chambers by a partition wall (Fig.p,iv). Vaulted GE tower houses have narrow entrance walls that contain continuous lintelled or vaulted passages rather than intramural chambers. The position of the ground entrance at Kilcrea and the fragmentary Dunboy [47] (Gowen 1975, fig.3) are reminiscent of the layout favoured in the RE tower houses and lack guard chambers.

The excellently-preserved ground-floor entrance at Cloghda [31] (Pl.L) is dressed in Cork limestone, and is (as is usually the case) slightly off-centre. It is typical of the highly stereotyped doors seen in these tower houses. The door moulding consists of an outer casement separated from the inner door by a rebate probably for an iron grille or 'yett'. The outer door reveal slopes with the base-batter; the door rebate is vertical. The slight external chamfer of the casement diminishes with height and there is sometimes punched ornament. The arch is formed from two great blocks. This form of door occurs across Gaelic Ireland (Chapter 6:e). However at Ballinoroher a semi-elliptical door arch was used; this form is seen in seventeenth-century Cork houses such as Ballea (Waterman 1961, pl.XXXI).

The vaulted GE tower houses have similar differentials in fenestration to the RE tower houses, and floors below the main vault were spartan and poorly-lit (Fig. o,i). Ballynacarriga [3] however has an exceptionally large first-floor chamber which has every sign of high-status occupation. The south side of the first-floor chamber contains a fireplace two metres wide. To the west of it, a large window, with a finely carved embrasure arch pierces the same wall. It is carved with a woman and a row of daisies, traditionally thought (with reason) to indicate the wife of the builder and the number of her children (Hurley 1906, 77).

Ballynacarriga and Carriganacurra fall into a small group of GE tower houses with an internal layout essentially similar to the RE tower houses; the former is exceptionally large. Its entrance layout is very straightforward (Fig. o,i). The space behind the door is slightly expanded to form a small 'lobby' and the internal entrance directly is opposite. At Carriganacurra there is a 'murder hole' over. A small barrel-vaulted chamber in one side of the lobby contains a long musket loop/chain hole that points into the destroyed jamb of the main entrance. On the opposite side of the lobby a stair ascends to a spiral stair within the angle.

The chamber's position in the GE tower house shows that it was for a guard or porter who regulated admissions to the tower house. The musket loop permitted callers to be overawed and could if necessary be used as a 'speaking tube'. It could also be used to secure an external grille or yett, the chain passing through the musket loop. An example of such a yett survives in Cork, in a seventeenth-century house, Ballea (Waterman 1961, pl.XXXI). At Ballynacarriga a portcullis groove was apparently

visible (Hurley 1906, 79) prior to the artless 'consolidation' carried out in the early 1970's. There is also documentary record of a 'grate' unhung from its hinges during the siege of Carrighnassig to the east of the Survey region (MacCarthy 1922, 124) and a door of 'iron' once existed at Mashanaglas in Muskerry (Gillman 1892a, 234). It is possible that 'ground pivoting' yetts of the sort used at Ross Castle, Co. Kerry (OPW guide) were sometimes used; a point excavation could throw light on. There are no surviving examples of external iron pintles for yetts in the Survey region, although a minute search has not been made for their remnants.

At Ballinvard [5], there is evidence for a heavily reinforced door to protect the 'porter', should attackers succeed in breaking down the main entrance (Fig. 0,ii). The interior was whitewashed and provided with a plastered lamp niche.

The most elaborate GE tower house entrances are seen at Ballinvard and Cloghda. The length of the Ballinvard jamb loop (1.52m) identifies the weapon as a musket. This first appeared in the mid-Sixteenth Century (Maxwell-Irving 1971, 201) and was a novelty with its long barrel; its weight of 20 pounds (9.1 kg) meant it could only be used with additional support. A legend of Cromwellian times (Hurley 1906, 78) tells of a rebel at Ballynacarriga with a gun 'eight feet in length' called 'Andoo'. The legend makes much of his skill as a marksman. Such peripatetic gunners were no doubt much sought-after by chieftains to join their wards. The appearance of this weapon in the British Isles had important dating implications (Chapter 5:d,iii).

A heavy drawbeam reinforced the main door, which could also be defended by an internal gun loop (Cloghda, Ballinvard). At those two tower houses the major chamber door is offset from the external entrance so that it could not be reached by a battering ram.

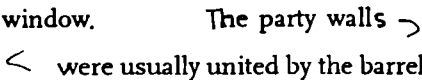
An additional musket loop/chain hole piercing the soffit of the arch occasionally occurs and may also have secured a ground-pivoting yett (Glandore [10]); this was lowered from an intramural passage that ran the length of the entrance wall at first-floor level. These galleries were part of a widespread development in Munster (Chapter 5:e) and were usually employed to give access to 'murder holes', a feature surprisingly rare in the Survey region.

At Togher and Ballinoroher a different type of entrance layout was used. A long guard chamber parallel with the entrance passage occupies the south-eastern angle at Ballinoroher; gunloops are absent. At Togher the lobby was a cuboid chamber, perhaps originally subdivided, with another chamber, slightly larger, above it. A timber floor rather than a vault covers the lobby, a vault was provided at second-floor level over the small first-floor chamber. This would perform the act of fire containment served by the lobby elsewhere.

An unlit chamber is a peculiar feature at Togher (Fig.2,i). It is to one side of, and entered through a

hatch from, the spiral stair. This was called the *Chambrin a Chodaigh* - the tyrant's little chamber (Lyons & Gillman 1895, 483). It was probably used to surprise from behind any attacker who ascended the stairs.

At Carriganass [1], as at Kilgobbin [29], a second-floor barrel vault insulated the upper part of the tower, even if the first floor was burnt. L-shaped chambers within the first-floor western angles give access to gunloops to either side of the angles of the tower. These gunloops are important clues as to the date of this tower house (Chapter 5:e,iii). Similar L-shaped gunloop passages exist at Kilcrea but at second-floor level.

Several unvaulted GE tower houses have a concentration of musket loops at first-floor level (Fig. p,ii). Gunloops are tunnelled into the embrasure corners of each window. The party walls  were usually united by the barrel vault over the lobby. The barrel vault over the entrance lobby formed the floor of a small kitchen chamber, with a disproportionately large fireplace (Ballinvard). The minor chambers usually broadly respect the main floor levels of the tower house, but at Ballinorohr the minor chambers fall 'out of sequence' with the major chambers. It was more normal, due to the rise of the stair, for each minor chamber to be four or five risers higher than its corresponding major chamber.

The minor chamber at first-floor level in the GE vaulted tower house could sometimes only be approached through the main chamber (Fig. p,ii,iv); it may have served as a larder or cold store for the kitchen.

The purpose of the first-floor major chamber in the unvaulted GE tower house can be conjectured (Fig.p). The chamber traditionally identified as 'the kitchen' at Cloghda (Gillman 1892, 234) has a finely dressed but plain fireplace (Fig. p,i), contrasting with the highly ornate fireplace in the principal chamber above (Pl.O). The presence of a large but unadorned fireplace is the chief evidence although soakaways are also sometimes present. The presence of a bread oven is an even surer means of identification (Fig. p,iv). The size of this chamber and the frequent comprehensive provision of musket loops are circumstantial evidence that it served both as a kitchen and as a 'low-status hall' for the *Ceithearn Tighe* (household troop) (Chapter 6:b).

The first floor in vaulted GE tower houses usually shows no evidence of a specialised function. It seems that the division of functions apparent in the unvaulted GE tower houses is absent in these tower houses, cooking being carried out in the principal chamber. The overt domestic function of the first floor at Ballynacarriga is unique in a vaulted GE tower house.

#### 4:b Second and third sub/vault floors where present

Some vaulted GE tower houses seem to have a defensive emphasis in the second floor rather than the first. At Coolnalong [6] and Raheen [12] the window embrasures were provided with uniform pairs of round gunloops that flanked otherwise normal shuttered loops or glazed windows. The wide and shallow splays permitted a wide traverse of the surrounds. Each wall face (Pl.M) is recessed by a defensive 'inverted V' overhang with a gunloop facing downwards into the apex (Fig.12,iii). The divergence between the sharp base-batter and the gentler batter of the upper walls causes this overhang to deepen with height; these features permitted the base-batter to be raked with fire. The ingenious design, with its many large intramural chambers and overhangs, was structurally puny and extremely vulnerable to cannon but the 'inverted V' was a widespread feature elsewhere in Gaelic Ireland (Chapter 6:e).

'Corner bartizans' are second floor features seen in two GE tower houses. At Ballynacarriga two bartizans jut from the north-east and south-west angles, but only a single example is present at Carriganacurra (Pl.N). Like the 'inverted V's' these are widely distributed throughout West Ireland (Chapter 6:e).

The bartizans permitted a degree of enfilading fire similar to the 'inverted V's' at Raheen and were far less technically demanding to build. Another rare peculiarity, best discussed in this context, though occurring at first-floor level, occurs at both Carriganass and another tower house, Mashanaglas, outside the Survey region in Muskerry. This is the triangular 'spur' attached to an angle of the tower house; it resembles one bastion from a trace such as Fort Steward, Donegal (1610; Lacy 1983, 369). Only one is used at Carriganacurra but two opposite angles have them at Mashanaglas (Gillman 1892a, 234). This is apparently a local fashion unknown elsewhere.

Garderobes are present in the vaulted GE tower houses, but their positions are much more varied than in the RE tower house and they are technically inferior to the RE 'anti-fouling' garderobes, due to their non-vertical chutes. The occupants of unvaulted GE tower houses relied entirely upon the close-stool; niches for these were either supplied in the minor chambers, or (at Ballinoroher) in special small closets directly off the spiral stair (Fig. p,iii).

#### 4:c The principal chamber and associated chambers

The principal chamber was as important in the GE tower houses as in the RE tower houses, but only Kilcrea followed the central hearth layout typical of the RE tower houses (Fig.q,i). GE tower houses were usually built with a wall-fireplace in the principal chamber. Where no vaults were used the windows could be larger and more evenly distributed throughout the building. As a result the chamber is obvious in the vaulted GE tower houses but is less readily distinguishable from the other chambers in the unvaulted GE tower houses. The second-floor principal chamber at Castle Donovan was no larger than the other chambers and had a lower ceiling than the kitchen. At Cloghda Castle (Fig. r,i) and Castle Donovan, mullioned and transomed glazed windows are used, allowing a much lighter interior than in unglazed tower houses. Glazed windows were the norm in the unvaulted GE tower houses, but were apparently absent from the vaulted type with the exception of Cloghda.

The principal chamber was entered directly from the spiral stair and was heated by a large fireplace in the party wall or one of the long-axis walls. This fireplace was always ornately carved from timber or stone, but only one example survives intact at Cloghda (Pl.O).

The principal chamber can usually be distinguished by three-light windows in the north and south walls; the window in the west wall is smaller or entirely omitted. This layout is seen in both the vaulted and unvaulted types (Fig.r). Additional small windows were sometimes supplied to the east. The largest windows were close to the west corners of the chamber (Fig. r). This arrangement indicates that a table (see below) ran along the western wall and it can be reasonably supposed that the lord of the tower house ate at the centre of the table, facing east to the entrance.

A feature of the unvaulted GE (UVGE) tower house is a chamber, above the principal chamber, of similar layout (Fig. s), which is nearly as well equipped with windows and fireplaces; these tend however to be smaller and plainer. The chamber probably formed the chieftain's 'apartment' where he could entertain his close family and friends. It was probably used as a bedchamber. A separate minor chamber may alternatively have been used for this purpose.

The central hearth was sometimes replaced by a fireplace inserted into one of the walls (Kilcrea) but the central hearths persisted into the Seventeenth Century; no effort was made to replace them in the majority of the RE tower houses.

Luke Gernon's *A Discourse of Ireland* (c.1620) has an important passage referring specifically to an 'uppermost room' or the 'hall' (cited Leask 1951, 91). The tower house that he visited may have been in any part of Ireland, but his vivid description throws much light on the use of this chamber in the early Seventeenth Century.

'The hall is the uppermost room, lett us go up, you shall not come downe agayne till tomorrow.... The lady of the house meets you wt. her trayne.... Salutations paste, you shall be presented wt. all the drinke in the house, first the ordinary beare, then aqua vitae, then sacke, then olde-ale, the lady tastes it, you must not refuse it. The fyre is prepared in the middle of the hall, where you may sollace yor.selfe till supertime, you shall not want sacke and tobacco. By this time the table is spread and plentifully furnished wt. variety of meates, but ill cooked and without sauce.. When you come to yor. chamber, do not expect canopy and curtaines.'

This passage is the only mention known to the author of a central hearth and table in a tower house. The role of the 'lady of the house' as host implies that the running of the tower house was traditionally a female preserve, probably because the chieftain was often absent; it is not surprising that there are records of wives defending tower houses on several occasions (Healy 1988, 291).

At Castle Donovan, the apartment over the principal chamber had the same area as the first and second floors, but a lower ceiling. It was lit by single-light windows in the centres of the north and south walls; a fireplace projects from the east wall and a loft separates the apartment from the underside of the roof.

A variant of the vaulted GE tower house, Cloghda, places two floors below the vault and two floors above it, with the principal chamber at its 'traditional' level.

The otherwise widely differing Kilcrea, Cloghda and Ballynacarriga were roofed directly over the hall but at Raheen and Carriganacurra a tall, timber-floored 'semi-attic' chamber existed above it. This was poorly lit but heated by a fireplace. At Carriganacurra, the principal chamber occupies the entire third floor. The vaulted GE tower houses are more varied than the RE tower houses.

At Ballynacarriga, the third floor is divided into two cells of unequal size. In the smaller cell there are two chambers, at third- and fourth-floor levels. An enormous fireplace and slop outlet in the minor chamber identifies it as the kitchen of the principal chamber. Cloghda (Fig. 1.1) and Ballynacarriga have benches running the length of one wall.

GE tower houses sometimes have ornament that is not restricted to windows. The embrasures at Ballynacarriga are richly decorated with relief work carved into the freestone voussoirs (De Breffny 1977, 23 & Hurley 1906, 77) but this is exceptional. As in RE tower houses the chamber was always supplied with the finest, most decorated features in the tower house. This probably extended to perishable items such as hangings and panelling. Oak panelling dating to 1591 survives at Bargoed Castle, Wexford (O'Callaghan 1981, fig. 24) and oak wainscoting in Timoleague Friary was considered worth looting by the English in 1596 (Coombes 1969, 22). It is therefore likely to have been present in tower house principal chambers. Decorative plasterwork is in embrasure arches probably also

existed as at Bunratty Castle, Co. Clare (Leask 1951, fig.81).

The purpose of the minor chamber next to the principal chamber of the unvaulted GE tower house is not clear. At Togher this chamber was called the *Chambrin na Banaltran*, 'the little chamber of the nurse' (Lyons & Gillman 1895, 483) and had a large twin-light window (Fig. 1,iv) and a fireplace. The chamber was directly linked to the principal chamber and, if its traditional identification is correct, suggests that the principal chamber was not a public space.

At Togher the second-floor principal chamber can be readily distinguished by its windows (Fig. 1,iv); the complete absence of otherwise ubiquitous render suggests that the chamber was panelled. The intermediate scale of the windows, the embrasures and offset fireplace in the third-floor chamber in Togher indicate the third floor could have been partitioned. Although very similar in overall layout to Ballinoroher, which was not partitioned, the fireplaces are placed in the party wall, rather than the long-axis walls. This prevented the obstruction of the wallwalk by chimneys. The Togher layout is strikingly similar to Ballinoroher but a 'simplification'. The flanking gunloops employed in almost all the apartment windows at Ballinoroher are absent at Togher, perhaps reflecting a concern for 'civility'.

Most UVGE tower houses had a loft, which like the other chambers, was entered from the spiral stair and provided with stout timber flooring. The loft would have eased inspection and repair of the roof but does not bear evidence of occupation.

The principal chamber at Cloghda has a unique layout. The excellently appointed chamber was oriented north-south and the concentration of features, including a bench, show that a table was set against the south wall. The usual hierarchical relationship exists, but rotated through 90°. Another feature, unique in GE tower houses, is a secret chamber entered through a hatch over the bench. The absence of a private apartment or 'solar' is another peculiarity of this tower house. The principal chamber apparently doubled as a sleeping chamber, a feature more reminiscent of RE tower houses. Such clues indicate that there were wide differences in social customs across the Survey region (Chapter 6:c).

We can form a picture of the principal chamber in use: *Tadhg an dúna* of Togher's principal chamber was probably furnished with imported furniture, pewter plate and cutlery and was panelled with ornately carved timber. His family, his bard, (Simms 1978, 89) clerk, lawyer, priest and physician, as well as members of the *derbfine* such as cavalymen could eat there. They could sit with the chieftain to one side of the principal salt cellar, while others sat 'below' it (Crawford Woods 1896, 343). Servants prepared food out of sight 'below stairs'. Bardic musicians, soothsayers, gamblers and others would be admitted as honoured guests, but the household ward and servants ate in the kitchen/ward room.



#### 4:d The roof, wall-walk and associated features

The parapets of the late tower houses occasionally survive to their full height; they are therefore much better known than RE tower house parapets but no wallwalks survive intact in the Survey region. This is because of vandalism rather than deliberate slighting.

The widespread use of machicolations is the chief difference between the GE and RE tower houses. Another peculiarity of the GE tower houses is the 'split level' wallwalk. This served to increase the apparent height of the tower over the entrance. the single-level wallwalk is however more common. Other interruptions like chimneys were tolerated. The ornamental potential of the crenellation was made full use of as in Tipperary (McKenna 1984, 60), while defence became wholly reliant on the musket.

The actual method of constructing the wallwalk was much the same as in the RE tower house, including the use of separate rainwater outlets and projecting slabs. Only at Kilcrea was the treatment brought to a peak of perfection by the use of carefully shaped components of Cork limestone. This is unlikely to have been a local development (Chapter 6:e).

Rectilinear corner machicolations were widely employed (Pl. M). A regional peculiarity was the 'chamfered' form seen in a variety of tower houses. Machicolations were present in all GE tower houses except Kilcrea. Carriganass retains good examples of chamfered corner machicolations on the western angles; these are supported on tall built-up corbels with vertical sides. The 'chamfer' rests on the angle of the tower below. This reduced the size of the downward openings but gave gunners a diagonal line of fire 45 degrees between the main runs of the wallwalk. The eastern corners were probably similarly embellished to balance the skyline of a once-magnificent tower house. The builders were aware of the decorative potential of these features.

There were sometimes as many as four machicolations. A machicolation directly over the entrance was invariably present; angle machicolations could be present on any of the angles except where the south-east or north-west angle was occupied by a turret. Occasionally (Ballinvard) a small central machicolation on the end wall balanced the entrance machicolation opposite. Although machicolations could be in close proximity, they were always separate and distinct; continuous machicolations of the sort used at Blarney are absent in the Survey region.

An interesting refinement improved the accuracy of the machicolations; this was done by reducing the size of the opening. The well-preserved machicolations at Ballinvard run some way below wallwalk level; this hemmed in the view to show the defender what was directly below. An edge-on 'safety' slab separated the wallwalk from the chute.

Gunloops usually pierce the parapet at regular intervals as well as the facets of the machicolations. Rainwater outlets above slabs project from the foot of the parapet at regular intervals. Various methods of crenellation were employed; the simplest is seen at Raheen where the parapet was apparently dressed with a level coping. Crow-steps occur at Togher but plain merlons were used at Castle Donovan.

Parts of the crow-stepped parapets at Togher survive to their full height of c.3.6m. The floor of the gunloops are horizontal to support the weapons, but the steeply sloping ceiling of each loop allowed the defender to point the gun down at forty-five degrees if necessary. The method of crenellation at Togher was entirely ornamental; the bases of the crenellations were at chin-height, affording almost complete protection to the gunners as they went about their work.

Occasionally the stair turret was carried upwards to form a dramatic look-out post. The spiral stair at Castle Donovan continued upwards to reach it. The obstructive placing of chimneys in the wallwalk was avoided by building flues integrally with the party wall and gables. A composite structure formed by the chimney stack, look-out post and semi-gable took up the east end of the pitched roof. The 'main' chimney usually contained several flues (Pl.2,ii) and had a coping of rough slabs. Slate flashing was built into the eastern complex to take the edge of a slated roof (Ballinvard) while a free gable took the other end. At Carriganacurra, these flashings show a sort of 'dormer' roof connecting the wallwalk chimney to the roof proper.

The dummy chimneys on the outer gables as well as the 'live' central stack at Togher are skirted by prominent slate flashings (Pl.2,ii). The elaborate chimneys were probably rendered over and painted to imitate carved freestone. The emphasis on the chimneys is reminiscent of strong houses such as Ballycowan, Co. Offaly (Craig 1982, 131).

#### 4:e Construction technique

The GE tower houses are distinguished by the marked differentials between the quality of the main fabric and the decorative features. Finely carved fireplaces were set into rough rubble walls and internal finishes were slapdash, particularly in circumstances where the feature was not in the public eye. The immaculate integration of timber and masonry elements at Kilcrea was most unusual. Neglect of such matters must have made many GE tower houses damp and prone to rot.

Techniques were less demanding than in RE tower houses, and indicate the use of a large unskilled workforce, where the masons did not 'regulate themselves'. The particular skills required to cut fine walling stone and build to batters were unnecessarily expensive of resources, and vertical superstructures are commoner, if not universal. Nonetheless some VGE tower houses are as well constructed as RE tower houses.

##### i. Quarrying and stone selection

The situation of GE tower houses was often far from rock outcrops, and few have obvious quarries nearby, unlike the RE tower houses; this is, in part, a geographical relationship (Chapter 5:c). At Castle Donovan the north side of the tower house was built on the edge of a cliff, probably sculpted by quarrying, above the marsh. Some tower houses like Ballinoroher seem to have been built, at least in part, from field stone (Pl.P). Great freshly-quarried blocks of the sort used in the RE tower houses are largely absent.

Small amounts of Cork limestone(?) were used in the GE tower houses. This crystalline grey rock was favoured for the dressings of ground-floor entrances (Pl.I) and windows at Togher and Cloghda. This stone was occasionally used to build entire tower houses in Co. Cork where exceptional resources were available (at Kilcrea the quarry must have been distant), but it was not used on a large scale in West Cork until the Eighteenth Century (author's observation).

Evidence such as the flashings on chimneys indicates that tower house roofs were usually slated or stone-tiled.

##### ii. The foundations

Much the same techniques of foundation construction were employed as in the RE tower houses and some GE tower houses were built on soil. At Coolnalong a shallow foundation of slabs was provided where the rock fell away to the east. The tower houses at Raheen and Castle Donovan have artfully built base-batters which follow or even encase the undulations of the virgin rock, maximising the defensive strength of the site (Pl. M). The base of Ballinoroher incorporated boulders (glacial erratics or re-used megaliths) that could be rolled to the site without much difficulty (Pl.P).

### iii. Masonry construction and the role of falsework

The complete absence of putlog holes in the GE tower houses indicates that different scaffolding techniques were used. Independent scaffolds seem to have been favoured in later tower houses.

The absence of large stones like those used to build the RE tower houses shows that no elaborate cranes were present. This implies quite different methods of organisation and differences in building personnel to those used to build RE tower houses.

Mortar was generously used in the GE tower houses. These tower houses are, in essence, 'cement' rather than stone buildings. Only the facing stones were individually laid and the cores of the walls are mortar mixed with quarry waste. The outside of the building was usually harled with mortar at the time of construction and was more regularly faced than the interior. The rough internal finish offered a good key for the plaster which was made full use of. The walls of the large chambers were tolerably regular but the minor chambers have lumpy walls and ill-defined corners. This lackadaisical approach was encouraged by the ready availability of very hard mortars, available in large enough quantities to fill up gaps between the most poorly-laid stones. The masonry at Ballynacarriga and Carriganacurra is exceptionally rough, being particularly crude in the ground-floor chamber where the bulging, sagging wall faces were built with no regard for straightness.

There is much variation in the relative extent of timber and stone in the construction. The vaulted GE tower houses have arched window embrasures and finely cut stone internal doorways with two-centred heads. Punched work is widely used to decorate the surfaces of dressings (Carriganacurra).

Despite an overall inferiority in finish compared to the RE tower houses, there are wide variations. These correspond to differences in layout.

At Carriganass a facing of carefully shaped but random-coursed blocks that approach the appearance of ashlar was laid. This was only outclassed by Kilcrea, where each block in the base-batter was carefully-shaped, re-positioned, shaped and only set when it was a perfect fit. This 'cyclopean' technique was unique and, like everything else about that tower house, reflects unusual resources. At both tower houses these techniques indicate a different masonry tradition (Chapter 6:e) and date to the other GE tower houses.

All traces of tooling have usually weathered away, but the door at Coolnalong shows the distinctive marks of the *claw-tool*. The marks on the door dressings at Cloghda reveal the use of the *boucharde* (a spiked mallet) on the 'field' while the arrises were trimmed with the claw-tool. Simple punched lines frame the windows of Raheen (Pl.Q). The dressings at Cloghda are patterned by punched work in exceptionally elaborate 'abstract' patterns. This form of punched work occurs sporadically throughout South-west Ireland (Donnelly 1994, 222).

Vaulting techniques are much the same as those used in RE tower houses. The chief difference was the use of skewbacks to reduce the size of the centring required for the 'true' vault. Both round and catenary barrel vaults were used, as in the RE tower houses. At Carriganass, a segmental profile was used for the vaults to improve headroom.

Spiral stairs are much wider than in RE tower houses, with stair wells as much as 2.6m across. Gently ascending steps (c.20 to a helix) were formed from single rough slabs of slate weakly bedded in the wall. Defined newels were absent except at Togher where a massive cylinder built out of rubble masonry forms the centre of the widest and shallowest spiral stair in the Survey region.

#### iv. Timberworking

Light timbers of rectilinear section were used in the GE tower houses. The first floor of Raheen was supported on wallplate timbers with a scantling of only 20cm, far less massive than the wall plates in an RE tower house (Kilcoe [15]). The wide section of each timber was vertically aligned as in modern buildings. At Togher the floor joists were directly embedded in the walls. Both techniques could be appear in vaulted GE tower houses where the corbel/wall plate technique was used for the sub-vault chambers while directly embedded joists supported the floors of the loft chambers. In the unvaulted GE tower houses the walls were usually offset internally at first-floor and third-floor level so that the joists rested directly on the offsets. Any other intervening floors were built on corbels, because this meant an offset could be avoided. The use of internal offsets seems to be associated with vertical external wall faces.

Kilcrea may have had a carpentered, hipped roof analogous to the surviving example at Dunsoghly, Co. Dublin. The gable at Raheen has sockets in its margins that show the roof timbers were substantial. The rafters were supported by pairs of heavy purlins. The depth of the internal rebate on the gable implies that the common rafters were of deep section. The placing of a small gable window in the solar/loft implies that horizontal collars at the level of the window head provided bracing between the rafters. Such a method conforms to the 'collar-tie' roofing observed in Tipperary (McKenna 1984, fig.20,c). The purlins are indirect evidence that trusses were present (to support them). Other GE tower houses do not seem to have used roof trusses.

The absence of evidence for carpentry in their gables implies that unvaulted GE tower houses had lightly constructed roofs of simple design. The lack of evidence for purlins shows that braced or 'collared' rafters were present without additional support from trusses. These rafters were presumably adequately braced by battens and ridge pieces.

Architectural ironwork was widely employed: iron door pintles were used for the stone internal door surrounds and panelled doors hinged on timber architraves seem to have been used in some unvaulted GE tower houses. Window shutters hung on iron pintles in these buildings and where

present the glazing was attached to vertical astragals of square section. Massive timber lintels were used in the fireplaces of some GE tower houses.

In some instances flat stone lintels were used much as timber lintels were (Coolnalong). Flat relieving 'arches' were laid over both types of lintel. At Cloghda, the flat relieving arches were unsupported after the centring was removed. Timber window frames are not seen in tower houses in the Survey region.

The widespread use of wainscotting both for panelling and partitions is implied by documentary evidence (Chapter 4:c).

#### **v. Types of internal and external finishes**

The bare stone walls now visible in GE tower houses give little idea of their original appearance. The GE tower houses were thickly coated with mortar and plaster. This was not applied as an afterthought but at the time of construction. Careful provision was made for it; at Coolnalong, the dressings of the main entrance stand c.1cm proud of the general wall surface so that they would be flush with a coating of plaster. A rough undercoat of mortar was used to provide a keying for the final smooth coat of plaster, now long vanished.

Chambers were usually plastered. At Togher the exceptional conditions have preserved much of the internal plaster work; the plastered passage from the stair to the first-floor chamber retains a decorative plaster door arch that imitates the stone door arches used in other tower houses. The stairwells of GE tower houses, including the undersides of the steps, are thickly plastered to form a smooth surface (Ballinoroher).

#### 4:f The design process

##### i. Units and setting-out formulae

There is no standard degree of regularity, there is a much wider variety, some plans are regular while others are completely irregular. These irregularities were apparently intentional. The Carriganacurra plan is remarkably irregular (Fig.q,ii), in contrast Kilcrea Castle is regular and was laid out using simple ratios based on multiples of whole numbers of statute feet. A 3:4 relationship dictated the external dimensions of 3x12 feet by 4x12 feet. The internal 2:3 ratio of the ground-floor chamber was achieved by the use of 2x10 feet by 3x10 feet. The principal chamber was laid out on a 3:4 relationship but the dimensions were not in whole units.

The apparent rarity of regular ratios or the use of whole numbers of feet shows that the masons were less concerned with arithmetic and regularity than the masons of the RE tower houses. The statute foot was universally employed with the exception of Raheen.

##### ii. The regulation of construction

The placing of the north and south windows near the west end of the chambers was favoured at all levels in the unvaulted GE tower houses. This displacement is also seen in the vaulted GE tower houses, but only in the principal chambers. At Ballinard, Ballinoroher and Castle Donovan little attempt was made to standardise the shape or position of the windows. The unvaulted tower houses at Derrylemlary and Togher had windows that used standard proportions and components and respected common vertical alignments. Differentials in fenestration between each floor, are much less than at Castle Donovan and Ballinard. This regularity of window arrangement is the only significant difference between Ballinoroher and Togher.

Sometimes, tantalising awareness is shown of such architectural matters as symmetry; at Coolnalong balanced 'inverted V's' bisect the north facade. While overall there is little symmetry seen in these tower house, the masons could be said to share the general Renaissance fascination with fortifications. The incorporation in their designs of such military/defensive principles as enfilading fire reached its apogee in the 'inverted V' tower house. The careful geometric design and construction used at Raheen and its two sister towers was however unusual. Raheen, Glenbarrahane [13] and Glandore were built in a manner which was sophisticated to the point of compromising structural strength. The structural weakness caused by these 'inverted V's' was compounded by a concentration of intramural chambers at second-floor level.

The mason would have had to calculate the height of the walls and their relationship to the batters in detail. They would have had to have understood a complex interplay of planes in three dimensions, with each 'V' angled to terminate at the same level as the others. The divergence between the sharp

base-batter and the gentler batter of the upper walls had to be closely regulated. Intriguingly, Castle Cove, Kerry (McAuliffe 1992, Vol.2, pl.11) shows an 'inverted V' with a step in one side of the 'V' to accommodate an error. This structure may well be an earlier work of the Raheen mason (Chapter 6:e).

The base-batters are often less pronounced and the majority of the unvaulted GE tower houses seem to have vertical or near vertical superstructures (Togher); battered superstructures do occur in association with vaults where it seems the masons had an empirical understanding of the greater strength of battered walls (Castle Donovan, Carriganacurra).

The square-root-of-two proportion seems to have been unknown to the builders of GE tower houses. An example at Togher can probably be attributed to chance.

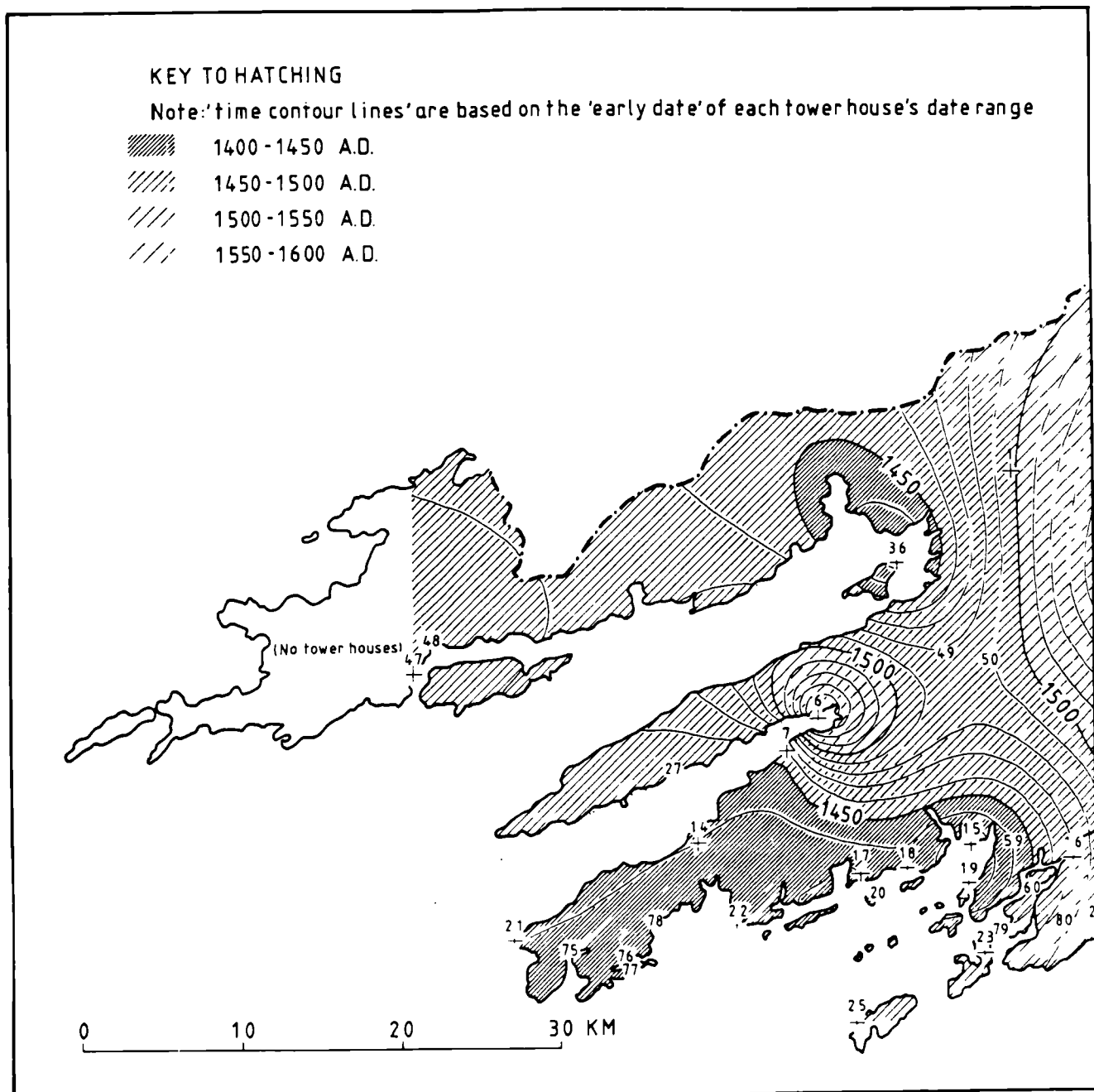
The degree of irregularity in the quadrilateral plan varies greatly. Only the short-axis differentials are of any significance, although long-axis dimensions can also vary (Castle Donovan)

Castle Donovan and Carriganacurra have extreme quadrilateral plans which seem to confer little benefit except to allow large minor chambers relative to the area of the major chambers. The lengthening of the north wall creates more space for the capacious spiral stair at Castle Donovan. Further research could show if this tendency occurred outside the Survey region (Chapter 6:f).

The unvaulted GE tower houses had much thinner walls than the RE tower houses but the vaulted GE tower houses had to have thick walls for structural reasons. The limiting of intramural passages to the entrance wall permitted the other walls to be much thinner. At Derrylemlary three of the walls were only c.1.25m thick. Overall scale was of course an important factor. At the larger Togher the same walls were a uniform thickness of c.1.67m thick at the top of the base-batter.

Spiral stairs did not have to be planned in the same degree of detail as straight intramural stairs. Floor heights were determined by a single complete helix of the spiral stair. They therefore tended to be fairly uniform, regardless of the chamber function.





**Figure t (i)**

The spread of tower houses through the Survey region  
and neighbouring parts of West Cork

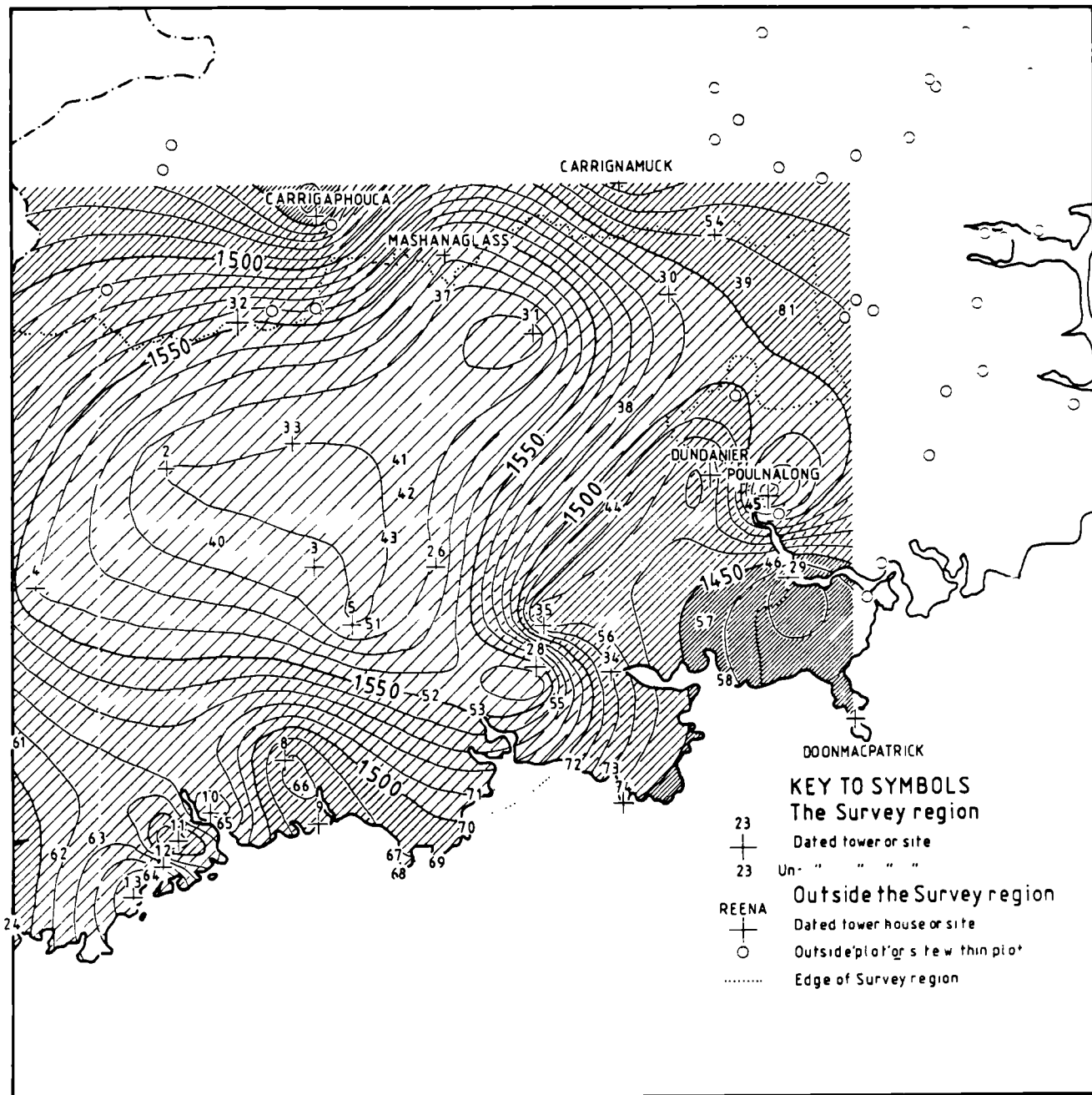


Figure t (ii)

The spread of tower houses through the Survey region  
and neighbouring parts of West Cork



**Plate R**

Dunanore's unnavigable location



**Plate S**

The 'curtain-wall' at Dunlough





**Plate T**  
Windows at Ballinoroher

Sorted by Clan

NAME	doors	clan/sept	floor division	floor number	largest floor	vaulted floor	latrine	fireplace	hours loop	gunloop	putlog grid	unit type
34 Timoleague	LRE	Barry Oge	N	>4	?	?	Y	?	Y	N	N	GF
27 Farranamanagh	LRE?	Daly	N	?	?	?	?	?	?	?	N	?
3 Ballynacarriga	GE	Hurley	N*	4*	4	4	Y	Y	N	Y	N	?
5 Ballinward	GE	Hurley	Y	5	4	N	N	Y	Y	Y	N	?
31 Cloghda	GE	Mac Sweeney	Y	4	4	3	Y	Y	N	Y	N	?
15 Kilcoe	LRE	MacCarthy Clan Dermot	N	3	3	3	Y	N	Y	N	Y	GF
6 Coolnalong	GE	MacCarthy Clan Teige Roe	Y	?	3?	N?	Y	?	?	Y	N	?
2 Togher	GE	MacCarthy Gleanacroim	Y	5	3	N	N	Y	N	Y	N	SF
8 Castle Salem	SRE	MacCarthy Reagh	N	>4	?	4	Y	Y	Y	N	N	SF

Table 6 (i)

Selected tower houses sorted by clan

NAME	doors	clan/sept	floor division	floor number	largest floor	vaulted floor	latrine	fireplace	hourglas s loop	gunloop	putlog grid	unit type
35 Monteen	LRE	MacCarthy Rabach	N	4	3	2,4	N	Y	N	N	?	SF
26 Derryemlary	GE	MacCarthy Crineen	Y	4	1	N	N	?	N	Y	N	?
28 Ballino- roher	GE	MacCarthy Crineen	Y	4	3	N	N	Y	N	Y	N	SF
30 Kilcrea	GE	MacCarthy Muskerry	N	5	5	3,5	Y	N*	N	Y	N	SF
29 Kilgobbin	LRE	MacCarthy Reagh	N	5	?	2,5	?	?	Y	N	N	GF
9 Downeen	LRE	O'Cowhig	N?	3	2	2	Y	?	?	?	N	GF
33 O'Crowley's Castle	?	O'Crowley	N	?	?	?	?	Y	Y	?	N	?
4 Castle Donovan	GE	O'Donovan	Y	5	2	2	N	Y	N	Y	N	SF
11 Castle Ire	?	O'Donovan	Y?	>3	?	2	?	?	Y	?	Y	SF?
12 Raheen	GE?	O'Donovan Clan Cahil	Y?	5	4	4	Y	?	N	Y	N	GF
13 Glandore	GE	O'Donovan Clan Loughlin	Y?	?	?	?	?	?	?	Y	N	?

Table 6 (ii)

Selected tower houses sorted by clan

NAME	doors	clan/sept	floor division	floor number	largest floor	vaulted floor	latrine	fireplace	hourglas s loop	gunloop	putlog grid	unit type
16 Oldcourt	SRE	O'Driscoll	N	3	2	2	Y	Y	Y	N	N	?
19 Rincolisky	FRE	O'Driscoll	N	>3	?	3	Y	?	Y	?	Y	GF
23 Dunalong	SRE	O'Driscoll	N	>2	?	?	N	N	N	Y	N	GF
24 Cloghan	?	O'Driscoll	?	>2	?	3	?	?	?	?	N	?
25 Dunanore	GE	O'Driscoll	N	4	4	4	?	?	Y	?	N	?
10 Glenbarra- hane	GE	O'Driscoll Slíocht Taidhg	?	>4	4?	4?	Y	Y	?	Y	?	?
32 Carriga- nacurra	GE	O'Leary	N	5	4	4	Y	Y	N	Y	N	?
7 Dunbeacon	?	O'Mahony	N?	4	4	4	?	?	?	?	Y	?
14 Dunmanus	SRE	O'Mahony	N	4	4	4	Y	N	N	N	Y	GF
17 Ardintenant	LRE	O'Mahony	N	4	4	4	Y	N	N	N	Y	GF
18 Rossbrin	FRE	O'Mahony	N	5	4	4	Y	?	N	N	N	GF
21 Dunlough	FRE	O'Mahony	N	3	3	3	N	N	Y	N	Y	?
22 Leamcon	FRE	O'Mahony	N	4	4	4	Y	N	N	N	N	?
20 Castleduff	?	O'Mahony?	?	>2	?	?	?	?	?	?	N	?
1 Carriganass	GE?	O'Sullivan Beare	N?	5	3	2,4	?	?	N	Y	N	?
36 Reenavanny	LRE?	O'Sullivan Beare	N	?	?	?	Y	?	?	?	Y	SF?

Table 6 (iii)

Selected tower houses sorted by clan



## CHAPTER 5: CORRELATION OF TOWER HOUSE ENTRANCE ARRANGEMENT TO:

### 5:a Clan/sept

#### Lateral raised entrance (LRE)

Downeen [9], Kilcoe [15], Ardintenant [17], Farranamanagh [27] Kilgobbin [29], Timoleague [34], Monteen [35], Reenavanny [36]?

This type of tower house occurs in several forms. Three examples that occur in the western part of the Survey region were each built for different clans, but show strong technical similarities (Table 6). Kilcoe [15] was occupied by the *Sliocht Diarmuid Reamhair*; Ardintenant [17] was built by the O'Mahony *Fionn*; Reenavanny [36] was apparently very similar to Ardintenant. The tower house was presumably built by the O'Sullivan Beare but was held by the O'Sullivan *Maol* sept (Ó Murchadha 1985, 304). The apparent use of the statute foot in its construction is a peculiarity. Kilcoe and Ardintenant were constructed to the Gaelic foot, but it is possible that the masons were 'bilingual' in the two systems of measurement.

Timoleague [34] also has an LRE layout but is geographically remote from the other examples and has little in common with them. It was probably built by a Barry Roe chieftain, but no individual is credited with its construction. It was built by a different school of masons from the western group. The raised entrance is not aligned with the ground entrance, nor is there any parallel for the secondary ground entrance, a peculiarity perhaps associated with its urban location. Its similarity to the tower houses in the West of the Survey region is largely coincidental. The fragmentary Dundanier (Barry Oge), just outside the Survey region, was probably an LRE tower house and was of very similar size, perhaps both represent another 'workshop'.

Kilgobbin [29] on the eastern border of the Survey region has marked technical similarities with the LRE 'western group' tower houses which points to some sort of link. This structure is of uncertain authorship (Chapter 5:e) but was probably a MacCarthy Reagh stronghold from the outset. The peculiar combination of LRE and FRE features (Chapter 3:a,i) cannot however be paralleled within the Survey region. Its plan area is no greater than that of Reenavanny and yet it is taller by a third (Pl. E) than the recorded full height of Reenavanny. Additional resources may have permitted a higher and more complex tower at Kilgobbin than was originally envisaged. The alignment of the plan on geographical north as well as the east-facing 'hour-glass' loop are features directly comparable with Kilcoe (Fig. f,ii,iv).

The small structures at Monteen [35] and Downeen [9] also have lateral raised entrances but are of very different form to the 'western group'. The Downeen tower house stands in the salient of

MacCarthy Reagh territory but is associated, on no known authority, with the little-known O'Cowhig clan (Westropp 1914, 111). Monteen was built by the MacCarthy *Rabach*, a sub-sept of the MacCarthy Reagh. There were no doubt other very small tower houses, which have vanished.

The common thread linking all these buildings was a belief that there should be a raised entrance, but only the 'western group' and perhaps Kilgobbin can be ascribed to one workshop. In conclusion, it is not possible to make any direct association between clan and the use of the lateral raised entrance. A geographical bias is strongly apparent, but no clan-based workshop.

#### Frontal raised entrances (FRE)

Rossbrin [18], Rincolisky [19], Dunlough [21], Leamcon [22]

This form of entrance occurs in four surviving tower houses built by the O'Mahonys (*Fionn*) and O'Driscolls Oge. No exact occurrences of the form is known to have existed elsewhere. The form could almost be described as an exclusively O'Mahony phenomenon (Table 6), apart from Rincolisky, but other examples may have existed in the Ilen watershed and in the O'Driscoll More *pobal*. The internal layout of the third, fourth and fifth floors at Kilgobbin bear a strong resemblance to a tower house of this form, but this may be coincidental. RE tower houses differing in certain important details from this 'western group' exist in Eastern Cork. Although Kilgobbin seems to be an outlier of the 'western group' its eastern affinities must be borne in mind (Chapter 6:e).

#### Staggered raised entrance (SRE)

Castle Salem [8], Dunmanus [14], Oldcourt [16], Dunalong [23]

This form can only differ in a single minor detail from the FRE form. Unsurprisingly it occurs in much the same area. They were very small, although they were undoubtedly fully appointed tower houses. Castle Salem does not precisely fit this category as it was built under the patronage of the MacCarthy Reagh of Kilbrittain and was much larger. It differs in significant respects from the western groups in such features as the absence of a base-batter and the use of the statute foot which show that this structure may relate to East Cork tower houses such as Castlemartyr (Chapter 6:e). Dunmanus and Dunalong are products of the same workshop, despite being built for different clans.

#### Ground entrance (GE)

The use of a ground entrance can be seen in a wide variety of tower houses which vary in many other respects (Table 6). To show any clan preferences it is necessary to make a sub-division into vaulted and unvaulted types. This division places a variety of otherwise dissimilar tower houses into the first category. The second category (abbreviated as UVGE tower houses) show a much higher degree of uniformity.

The only tower house building clans/septs who did not build any surviving tower houses of the VGE form were the O'Mahony *Fionn*, the O'Driscoll More and O'Driscoll Oge septs. No other clan pattern is discernible in their distribution.

#### Double vaulted ground entrance tower houses

Carriganass [1], Kilcrea [30]

The GE tower house with two vaults is now a rare form, but was probably more common once. Kilcrea, built by the MacCarthy Muskerry clan is apparently unique among GE tower houses, at least within the Survey region, because of the 'RE traits' that pervade its design. The other probable GE tower house with two vaults at Carriganass was of a slightly less ambitious specification.

Carrignamuck Castle, another MacCarthy Muskerry stronghold, was also double-vaulted (Gillman 1892a, 16), but the Kilcrea arrangement is not exactly reproduced. Other examples may have existed at Kilbrittain [57] and Castle Bernard [44] where first-floor barrel vaults still exist (Power 1992a, 323, 327). The former was the 'headquarters' of the MacCarthy Reagh and the latter was the chief residence of the Kinalmeaky branch of the O'Mahonys. Double vaulting seems to be a recurring feature of large tower houses built by the more powerful eastern clans and apparently bears a closer relation to available resources than typological classification. It occurs elsewhere in Munster (Chapter 6:e).

#### Single vault ground entrance tower houses (VGE)

Ballynacarriga [3], Castle Donovan [4], Glandore [10]?, Raheen [12], Glenbarrahane [13], Cloghda [31], Carriganacurra [32]

These are very varied in form. The mason responsible for the form with 'inverted V' gunloop recesses was commissioned by three septs of two distinct clans. The *Sliocht Taidhg* of the O'Driscolls, the *Clann Cathail* and a junior branch of the O'Donovans, *Clann Lochlainn*.

The common authorship of Carriganacurra and Ballynacarriga is shown through the presence of corner bartizans and identical entrance wall thickness. They were built by the O'Learys and Hurleys respectively, relatively minor inland clans who do not seem to have built any RE tower houses. The corner bartizan is very widespread elsewhere in Ireland, particularly along the western seaboard (Chapter 6:e).

Castle Donovan and Cloghda are isolated forms, neither of which has exact parallels. The former has many features more reminiscent of UVGE tower houses and it is not surprising that it closely resembles the UVGE Coolnalong [6] in execution, if not layout. Although it, was built by the *Clann Cathail* of the O'Donovans it has little in common with their other tower house at Raheen. Cloghda

may well incorporate part of an earlier structure but reflects an unknown influence from outside the Survey region in the manner of ornamentation. Epigraphic evidence shows Cloghda was built in 1598 by a gallowglas sept of the MacSweeneys who had not, it seems, constructed any other tower houses prior to that date. It may well have been built on the site of an earlier MacCarthy Muskerry stronghold (Gillman 1892b, 235) of which part may have been retained. The entrance layout follows very similar practices to that of Ballinvard [5], a UVGE tower house, that in turn seems to be a loose copy of Castle Donovan (Pls. 4,i & 5,i: *gazetteer*)

#### Unvaulted ground entrance tower houses (UVGE)

Togher [2], Ballinvard [5], Coolnalong [6], Derrylemlary [26], Ballinoroher [28]

Examples of the UVGE tower house form were built by the MacCarthy *Mudlagh* sept of the MacCarthy *Clann Taidhg rua na Scairte* (Coolnalong), the MacCarthy Gleanacroim (Togher), the MacCarthy Clan Crimeen (Derrylemlary and Ballinoroher). Ballinvard was built by the Hurleys and is their only surviving essay in tower house construction apart from Ballynacarriga. O’Crowley’s Castle [33] was either a stronghouse or a UVGE tower house judging from the present remains. No surviving examples were built by the O’Driscolls, O’Mahony *Fionn* or O Sullivan Beare clans. They seem to have been particularly favoured by two MacCarthy Reagh septs, Crimeen and Gleanacroim.

This sorting by clan shows that the UVGE tower house was favoured by clans who had not built any other type of tower houses.

In conclusion the tower houses built by a single polity (in the sense of a clan or powerful sept) tend to be of similar entrance layout. The variety of structures built by the O’Donovan clan is unusual; this reflects the volatile nature of this clan, where the leadership was fought over by three different senior families as late as 1560; the area of their clan was very large, allowing each sept much independence. The balance of power between the *Clann Cathail*, *Clann Lochlainn* and *Sliocht Iomhair* (Ire) allowed this independence. The construction of a large ‘inverted V’ tower house at Glenbarrahane may therefore mark a growing self-assertion of the eastern *Sliocht Taidhg* of the O’Driscoll clan. The contrast with the centralised O’Mahony *Fionn* branch is clear. The relative uniformity of the RE tower houses built on the Ivagha peninsula shows a connection between political stability and uniformity of design.

Some correlation can be seen between the types of tower house built and the extent of the MacCarthy septs. The MacCarthy Muskerry clan and the Barretts built turreted tower houses such as Blarney, Carrignamuck and Castle Inch [54] (destroyed); these shared elaborations such as projecting stair turrets and lateral ground entrances, a combination of features not observed elsewhere in the Survey region. It has been suggested that this plan originated from the two-stage development of Blarney (Crawford Woods 1896, 344), becoming regularised with Carrignamuck and Castle Inch.

The 'Ardintenant-type' LRE tower house was geographically concentrated rather than clan-based. With this exception, a strong correlation with clans is evident. Where 'cross-clan' similarities can be pin-pointed with the RE tower houses, these are almost all limited to neighbouring clans. Ideas were directly transmitted but only over short distances. Little external influence is apparent except from East Cork.

No clan built GE tower houses of a uniformity comparable to RE tower house layouts in the O'Mahony and O'Driscoll territories. The poorer survival of tower houses in the eastern part of the Survey region does not hide the fact that tower houses are usually (where they survive) of GE form. Significantly, the sprinkling of RE tower houses built by clans other than the O'Mahony Fionn and O'Driscoll More are very varied in character, showing no technical or stylistic links. Great size and technical excellence is a factor distinguishing the large plain and turreted GE tower houses, built by the MacCarthy Muskerry in the Survey region and immediately east of it.

Sorting by entrance type highlights the relatively high proportion of tower houses in the Survey region which have raised entrances. Abraham's research in Meath indicates that with only one, topographically dictated exception (1991, 248) all tower houses in Meath were of ground entrance form, precluding this as a method of sorting. Cairns (1987, 14) does not seem to regard this as a matter for comment in Tipperary because only GE tower houses were known to him. The recent survey of East and South Cork (Power 1992b) does however reveal that of twenty nine known tower houses, six are of RE form (21 per cent). The proportion for the Survey region is higher at 41 per cent, but the occurrence of *any* other RE tower houses elsewhere in Cork is obviously of significance (Chapter 6:e). The East and South Cork tower houses were built by Gaelicised families of Anglo- or Cambro-Norman descent and the ethnic background of the builders is a factor that must be considered in determining the relationship of the Survey region tower houses to overall traits in tower house design.

## 5:b Site type

It is possible to place all the tower houses in the Survey region into the following categories of site. Some sites may however have several characteristics (such as Rincolisky and Kilcoe). The basic types are:

- i. Natural harbours/*navigable* rivers and islands
- ii. Promontory fort/lake sites unsuitable for navigation
- iii. Ringforts (including 'raths ' and 'cashels')
- iv. Inland waterless hilltops
- v. Inland passes, fords and natural routes
- vi. Areas of good soil near rivers
- vii. Poorly-drained deep valley sites

### i. Natural harbours/*navigable* rivers and islands

LRE: Kilcoe [15], ?Farranamanagh [27], Kilgobbin [29], Timoleague [34], ?Reenavanny [36]

FRE: Rincolisky [19], ?Foildarrig [48]

SRE: Oldcourt [16], Dunalong [23]

GE: Coolnalong [6], Glandore [10], Raheen [12], ?Glenbarrahane [13], Dunboy [47],  
Lissycrimeen [73]

? Castleduff [20]

The majority of these tower houses are of RE type and almost all the GE examples occur in a small area. Islands large enough to permit extensive pasture were normally favoured. Little disadvantage attached to such sites where boats formed the normal means of transport (Chapter 6:b).

If any trait is apparent, it is that the handful of GE tower houses are near good deep-water harbourages for ocean-going vessels. The RE tower houses are on more marginally navigable sites, several of which are only approachable under favourable winds by small boats. Kilgobbin and Rossbrin command excellent harbourages but stand at the top of tall hills overlooking the water; in these instances, the tower houses can be ruled out as mercantile storehouses. Reenavanny, though on an island, is some distance from the shore. It can be concluded that, except in rare circumstances, the tower house was not directly involved in nautical and mercantile activities (Chapter 6:b).

### ii. Promontory/inland/lake sites unsuitable for navigation

LRE: Downeen [9]

FRE: Dunlough [21], Leamcon [22]

GE: Dunanore [23], Dunworly [74]

These tower houses could only be approached from the landward side, and, although they stood next

to the sea, tall cliffs, strong currents, submerged reefs and Atlantic-facing sites must have discouraged their use as havens. It can be assumed that defensibility was of paramount importance in their siting. With one exception, all incorporate *dún* in their name. Some doubt has recently been cast upon the use of *dún* as an ancient term referring to earthen structures because it is used for relatively recent place-name coinings in the Survey region (Kenneth Nicholls, pers. comm.). The term *dún* correlates closely to promontory forts, including sites where tower houses were never built, i.e. Doonendermotmore (Toe Head). This argues against the term having any specific relation to tower houses. All survivors are RE tower houses except for the maverick Dunanore (Pl.R) but most are fallen, due to exposure and erosion.

The siting of forts in promontory forts provided ample defence at the expense of shelter or ready access to water. In some instances, the tower house stood on a cliff-girt island connected to the mainland by a narrow path of rock or a timber bridge. At Dunworley (not described) the tower house doubled as a gatehouse (Westropp 1914, pl.X). The tower house also forms part of a mural barrier to cut off a promontory at Dunlough (Pl.S); Doonmacpatrick, the Old Head of Kinsale is another excellent example, just outside the Survey region (Westropp 1914, pl.xi). The masonry wall at Dunlough replaced an earlier rampart and ditch now destroyed but recorded by Westropp (1915, 273-4). Rincolisky was sited at the neck of an isthmus which may have acted as a 'corral' for herds.

### iii. Ringforts

LRE: Downeen [9], Ardintenant [17]

GE: Kilcrea [30]

? Dunbeacon [7]

Tower houses that are surrounded by extant ringforts are comparatively rare but several other 'probables' can be suggested on the basis of place-name evidence.

Dunbeacon and Ardintenant were embedded in the ramparts of their respective ringforts. Two other ringforts in the Survey region incorporate medieval lime and mortar structures in their ramparts, Knockeen (Westropp 1915, pl.xxiv) and Ballyourane (author's observation). Only Kilcrea is known to have stood *within* a probable re-utilised prehistoric fort (Butler 1910, 176). Archaeological dating for the other ringforts is lacking (Chapter 6:a) but medieval construction is strongly implied (Chapter 6:a).

### iv. Inland waterless hilltops

Status unknown:

Castle Ire [11], Ardagh [80], Lettertinish [63], Aughadown [59]

There are no surviving examples of this type of tower house in the Survey region and their entrance

arrangements can only be guessed at. These tower houses were situated to command immense views. Their intervisibility implies that they played an important role in signalling (Chapter 6:b).

**v. Inland passes, fords and natural routes**

GE: Carriganass [1], Ballynacarriga [3], Castle Donovan [4], Derrylemlary [26], Ballinoroher [28], Cloghda [31], Carriganacurra [32]

All surviving examples of tower houses that dominate natural routes are of ground entrance form. Castle Donovan stands in an inhospitable upland valley that must have previously formed an important raiding route from the north. Carriganass probably overshadowed a predecessor of the modern bridge leading to the Pass of Keimaneigh through the Shehy mountains. Ballinoroher is also supposed to have been sited on a ford (Healy 1988, 224) perhaps to exact tolls. It is a moot point as to whether these tower houses were actually intended to be used to repel invaders, or to act as psychological deterrents. There is of course no clear cut distinction between this category of site and the next.

**vi. Open areas of good soil near rivers**

GE: Togher [2], Ballinoroher [28], Kilcrea [30], Cloghda [31]

The tower houses that stood on alluvial soil are all large and of ground entrance form but these areas were not necessarily used, as they are now, for good pasture and arable farming, and some, such as Togher, were within marshes. As above there is no clear-cut division between this category and (vii).

**vii. Deep valley sites**

GE: Ballinvard [5], Derrylemlary [26], O'Crowley's Castle [33]

SRE: Castle Salem [8]

LRE: Monteen [35]

These tower houses are not identical in their degree of concealment. The two RE tower houses exploit pleasant sheltered sites below steep south-facing slopes. The two GE tower houses, in contrast, stand on rocks in poorly drained marshy valleys that must have restricted surrounding settlement or other activities. O'Crowley's Castle stands in a more open site between two hills but the only open approach to the west is marsh.



### 5:c Generalised geographical zone of the Survey region

The relationship between entrance layout and geography can be summarised as:

(A) Ground entrance = Inland/North-east

Raised entrance = Coastal/South-west

There must however be the important qualification that :

(B) Ground entrance = High relief

Raised entrance = Low relief

A survey that was limited to the western part of the Survey region would present 'model A', but when the whole of West Cork is included in the picture the influences of 'model B' complicate the issue.

With the exception of Coolnalong and Dunboy (Gowen 1978, fig.3) variants of the RE form are the *only* form of tower house encountered in Ivagha, Cape Clear, Roaring Water Bay, Sheeps Head, Durrus and the Beara peninsula.

Further east of Toe Head, a similar pattern is apparent, with inland examples occurring on the coast or immediate hinterland. Surviving RE tower houses are conspicuously absent from the highland and central hill zone of the Survey region; their siting frequently bears witness to the existence of pre-existing forts and ringforts. The demands of subsistence, communications and herding, rather than strategic importance seems to have dictated their siting.

Within the Survey region there was a concentration of LRE tower houses in the coasts and islands surrounding the Ivagha and Sheep's Head peninsulas.

The sample of double-vaulted GE tower houses is too small to make any general comments on the geographical zone they occupy, other than that both examples are distant from the western zone of intensive RE tower house construction.

GE tower houses occur in a much wider variety of sites than RE tower houses but very rarely above the 100m contour line. The general inland elevation meant that tower houses had to be built on the most sheltered sites available within the upland zone. Carriganacurra and Togher were built in the most low-lying valleys of territories which were for the most part above the 100m contour line. The exceptional siting of Castle Donovan and Baurgorm [50] at 130-140m was due to the strategic importance of these sites. Climate otherwise deterred builders from building above 100 metres.

It has been commented that most of the tower houses built in Tipperary were built in areas favoured by the Anglo-Normans for colonisation, coinciding with the area below 600 ft (182m) (Cairns 1987, 12). A similar pattern has been observed in Kerry (McAuliffe 1991, 133). The western RE tower houses are mostly outside the area of transitory Cambro-Norman settlement. The fertile southern

coastal zone and the valleys of the Bride, Bandon and Lee rivers were the areas in the Survey region favoured for Anglo-Norman settlement (Nicholls 1993b, fig. 6). A concentration of settlement in the rich river valleys has also been noted in Wexford (Jordan 1991, xii).

GE tower houses are concentrated in that part of the Survey region that corresponds to the highest land values in 1851 (Smyth 1993, fig.16.1). These areas are closely related to soil type as well as relief. The massive variations in land productivity observed throughout Co. Cork in the mid-Nineteenth Century may therefore relate to the size, design and distribution density of tower houses built several hundred years earlier.

The western concentration of RE tower houses covers an area of exceptionally poor agricultural productivity during the Nineteenth Century. Caution must be exercised in relating tower houses to nineteenth-century land use. Great environmental changes could have occurred in the intervening period but GE tower house siting, especially the unvaulted form, show a closer correlation to good quality land in 1851 than the RE tower houses.

The tower houses of the Survey region show a similar '...geographical correspondence with layout type...' to that which has been observed in Limerick (Donnelly 1994, 137). It is necessary to see if societal changes within the Survey region can be used to explain the systematic geographical variations that have been observed. To do this it is necessary to establish the construction dates of the tower houses as accurately as possible.

## 5:d Documented date/art historical and weapons technology dates

The different methods used to date these tower houses require some explanation. Most of these buildings are 'single phase structures', that were rapidly built and rarely altered; few opportunities arise to recognise and use building phases as an aid to dating.

The absence of surviving timberwork rules out dendrochronology or radio-carbon dating but the historical evidence (Table 7 below) provides a series of 'anchorages in time' to establish the relative date of tower houses by relating documented and undocumented structures through shared features as was pioneered by Westropp in Clare (Donnelly 1994, 19).

### i. Documented date

Documentary evidence for the construction of a tower house is highly unusual, the reference to the construction of *Dún na mBend* (Castle Salem) only gives the date of the builder's death and her responsibility for its construction. The low levels of literacy current in the Survey region in the mid-Nineteenth Century (Smyth 1993, fig.16.7) ran alongside a rich body of oral tradition; the substantial accuracy of these traditions has already been established (Chapter 1:e).

The problem of dating the tower houses, particularly the later ones, is perhaps over-stated; datestones can be seen in many Irish tower houses dating from the second half of the Sixteenth and the first half of the Seventeenth Centuries. Four surviving examples exist in the Survey region of which two are divorced from their original contexts while a fifth example is recorded. These do not record the commencement of construction because they only record the level reached when the datestone was inserted; a very large tower house was probably started several years earlier and the datestone may record an insertion of, typically, a new fireplace or windows. Despite such unknowns, the datestone was a custom of immense value to future researchers. Two examples (Cloghda, Ballynacarriga) are unambiguously contemporary with the surrounding fabric.

The table below gives an 'uninterpreted' ordering by chronology of the first published documented date. These are 'starred' according to reliability. Where a tower house is traditionally attributed to a chieftain whose date of death is known from annalistic sources a *terminus ante quem* for the tower house can be given. Another less certain dating method uses mentions in documentary sources of a place-name as a place of residence of a chieftain, where a tower house is now known to have existed.

**Table 7**  
**First documentary mention of tower houses**

<u>TYPE</u>	<u>DATE</u>	<u>NAME</u>
SRE	1465**	Dunmanus
FRE	1465***	Rossbrin
LRE	1469***	Kilgobbin
LRE	1469***	Monteen
RE	1473***	Ardintenant
LRE?	1473**	Dunbeacon
FRE	1473**	Leamcon
GE	1494**	Kilcrea
FRE	1496*	Dunlough
SRE	1506***	Castle Salem
SRE	1537***	Dunalong
GE?	1549*	Carriganass
LRE?	1563***	Reenavanny
GE	1576*	Carriganacurra
GE	1577***	Castle Donovan
GE	1579*	Coolnalong
GE	1580*	Glandore
GE?	1584**	Raheen
GE	1585****	Ballynacarriga
LRE	1586****	Timoleague
GE	1590*	Togher
GE	1598****	Cloghda
GE	1601***	Ballinoroher
GE	1601***	Glenbarrahane
LRE	1601***	Kilcoe
GE	1602***	Dunanore
SRE	1612***	Oldcourt
FRE	1614***	Rincolisky
GE	1641***	Ballinvard

\* Townland known to be a chieftain's residence

\*\* Annalistic date of death of chieftain traditionally held to be responsible for construction

\*\*\* Specific mention of the tower house in the annals or other documentary source

\*\*\*\* Datestone

These first mentions are mostly a poor guide to exact construction date, and some tower houses may already have been over a century old. Nine tower houses are placed in the Fifteenth Century on the basis of oral or written evidence. Of these eight are of RE type (89 per cent.). A larger number (13) are first mentioned in the Sixteenth Century, of which 9 (69 per cent.) are of GE form. In the Seventeenth Century, six tower houses are mentioned for the first time of which three are GE and three RE (50 per cent. respectively).

Even if the traditional evidence is treated with scepticism, and the fifteenth-century strongholds named in annals are assumed to pre-date the tower houses that now exist, the better records of the Sixteenth Century firmly place a large fraction of the GE tower houses of the second half of that century.

The 'raw' text-based dating does however throw up several anomalies. It will be noted that three RE tower houses are not mentioned until the beginning of the Seventeenth Century; this is probably related to the survival of records: they belonged to clans who did not perform 'surrender and regrant' or form the subject of pardons and inquisitions during the Sixteenth Century which would have provided earlier mentions. Such tower houses are mentioned for the first time in the *Pacata Hibernia*, Stafford's 1633 account of the 'pacification' of the Nine Years War.

Whatever the weaknesses of folklore the references to Kilgobbin, Monteen (*Annals of Ulster*: Nicholls 1993b, 192) and Ardintenant (Hennessy 1871, 175) show that LRE tower houses existed in 1469 and may have already existed for some time if it is accepted that these references are to the extant structures. This establishes the LRE tower house as a form well-established prior to 1470.

The 1506 reference to *Dún na mBend* (Castle Salem) places Castle Salem firmly in the last quarter of the Fifteenth Century, assuming that its builder, Catherine, daughter of the Earl of Desmond, reached her majority c.1475. This isolated evidence is not enough to prove that all SRE tower houses were of this date, but shows when such a method of entry was being built.

Few tower houses can be attributed on the basis of documentary evidence to the first half of the Sixteenth Century. Carriganass is a possible exception; its similarity to Kilcrea (T.A.Q. 1494) reinforces the weak mention of a 'castle' in 1549 as a reference to the existing structure. The context of the mention (AFM cited by Ó Murchadha 1985, 303) implies the 'castle' had already existed for some time. The limited evidence therefore places the double-vaulted GE form between c.1470 and c.1540.

A rash of 'first mentions' after c.1575 indicates a renaissance of tower house construction purely on the basis of textual evidence. This and epigraphic evidence indicate a remarkable variety of GE forms were being built in a period of c.25 years.

The textual records imply that tower house construction effectively terminated after the Nine Years War if it is accepted that 'first mentions' of RE tower houses after 1601 refer to long-extant structures. Only Ballinvarad escapes mention until 1641; but a tradition exists that it was built by the same chieftain who constructed Ballynacarriga (Coleman 1924, 47).

## ii. Art Historical date

All the decorative elements which survive in the RE tower houses can be widely paralleled elsewhere in Ireland. Even when allowance is made for the disproportionate stone-robbing of castles compared to religious ruins they differ from Parish Church and Friary architecture in being less ornate. The very widespread nature of the 'Irish Gothic' style is illustrated by the use of near-identical label stops at Kilcoe and Cahir Abbey, Tipperary (National Parks and Monuments Service 1982, 19). To discuss the style employed in the Survey region is therefore very much to address the overall questions raised by the 'Irish Gothic' style. The RE tower house is associated with the late-flowering of a style absolutely uninfluenced by contemporary English practice, except perhaps in the use of the square hood mould.

The imprecision of dating evidence deriving from art historical comparison cannot be ignored. Although Baltimore 'Castle' is not a tower house, its highly ornate windows are relatively well-preserved. This structure is of significance because it can be dated with reasonable confidence to shortly after 1537 when its predecessor (a Norman hall house?) was burnt. Like the RE tower houses, the windows are all adorned with ogee heads but the low ogees are essentially elliptical arches only interrupted by the weakest of points. The windows have large square hood mouldings and several of them were three lights wide with large horn-shaped or 'swagged' label stops. These features therefore seem at first diagnostic of a mid-sixteenth-century date, but they also occur at Cloghda, dated to 1598.

Architectural ornamentation was almost entirely restricted to windows and doors, the parts most likely to be robbed for stone. The use of styles of architectural ornamentation as a means of dating is particularly difficult in the context of Irish medieval architecture. The problem is that the Irish retained styles of tracery long after they had ceased to be fashionable in England (Mallory & McNeill 1991, 284). This *caveat* aside, it is possible to observe developments *within* the corpus of tower houses in the Survey region, without however being able to give more than a broad suggestion of date range.

RE tower houses: various traits are apparent in all the western group of RE tower houses. Loops are of ogival form with sunken spandrels but surviving ornamentation is otherwise absent, other than external and internal chamfers. The loops tend to be very narrow in proportion to their height and the ogival heads are correspondingly tall and attenuated. Leask attributes this form to the Fifteenth and Sixteenth Centuries (1951, fig. 14). Shorter loops were usually square-headed.

Where multiple-light windows survive these too are of ogival form, and are set within square heads. Tracery existed very rarely and is always destroyed. Square hood moulds occur occasionally and may have been more common. Westropp dated Leamcon to after the beginning of the Sixteenth Century on the strength of this feature (1915, 268) but the weight of evidence indicates a somewhat earlier date.

If the 'western' and 'eastern' RE tower houses were to be distinguished by any single characteristic, it is the absence of 'sunken spandrels' in the eastern group (effectively Kilgobbin and Castle Salem). Whatever the disagreements about the scale of Irish architecture in the Fourteenth Century (McNeill 1985-6, 61), the art historical evidence indicates that it is improbable that any RE tower house was built before c.1350.

The double-vaulted GE tower house of Kilcrea is rich in surviving window details (Pl.30,i). There are some remarkable variations in the treatment of windows although the general ogival style of the two-light windows is essentially similar to the RE tower houses. Square window hoods and sunken surrounds are juxtaposed in the eastern (entrance) wall. The link with Friary/ecclesiastical architecture is illustrated by the use of ribbed embrasures seen at Timoleague Abbey and Rathbarry Church. The use of hollow chamfers in one window and the conceit of deeply-cut internal as well as external spandrels is worth mentioning here, if only to show that this feature is an echo of practices well-established in an ecclesiastical context and not a local invention.

The vaulted GE tower houses (with the exception of Castle Donovan) are characterised by window forms that are eclectic, if not eccentric, examples of an entirely Gaelic tradition. The point in loop heads is occasionally dropped entirely to create round-headed lights, as at Ballynacarriga and Carriganacurra. Other peculiarities are the use of square profile jambs, with only the sill chamfered (Carriganacurra) as well as the widespread appearance of punched external ornament of the window dressings (Cloghda). This is an Ireland-wide phenomenon thought to be highly diagnostic of date (Cairns 1987, 16). The ogival style persisted (Cloghda) but by 1598 even the Irish Gothic style of window used glazing. The use of punched ornament reached its bizarre abstract apogee at Cloghda.

Although no direct English influence is seen in the windows of the vaulted GE tower houses, quasi-classical ornament makes an appearance in the fireplace lintel at Cloghda. The carved vine-leaf ornament in the embrasures at Ballynacarriga can be paralleled by the ornament used in the window embrasures of the hall at Askeaton, Co. Limerick and the plaster ornament at Bunratty; this seems to have been an indigenous development (Leask 1951, 96).

Two-centred door arches were extensively employed within the interiors of the unvaulted GE tower houses. These appear at first to be a conservative feature, but the majority of internal doors in the RE tower houses were astylar.

Mullioned and transomed windows, with glazing grooves and astragal sockets for carrying glass, are characteristic of the unvaulted GE tower houses. These windows can be distinguished from the Gaelic styles of windows quite readily. Technically, they are indistinguishable from the windows '... typical of Jacobean England...' (Cairns 1987, 13) but Jordan considers them more diagnostic of Elizabethan date (1990, 55). It is therefore justifiable to regard the presence of this type of window as good evidence for a date of after the middle, if not tending towards the end, of the Sixteenth Century, but allowance must be made for the time needed for the spread of this fashion to one of the remotest quarters of Europe.

The adoption of Elizabethan-style windows is associated with the introduction of standardisation of window construction that allowed the same dressing to be employed in a variety of window sizes. It would be an over-simplification to argue for a straight replacement of the eclectic Irish Gothic overnight (see above) documentary and epigraphic dating show that both styles co-existed in the Survey region and sometimes in the same tower house (Ballinoroher). Ballinoroher and Togher show how the same architect moved from Irish Gothic to Elizabethan windows. It is perhaps significant that the only Elizabethan windows at Ballinoroher are in the top floor and were the last to be constructed (Pl.T).

In conclusion, the art historical evidence points to an absolute chronological break between the RE tower houses and the GE tower houses; not only can the RE tower houses be firmly placed in a fifteenth-century context, but the art historical evidence points to a near total break in tower house construction between c.1500 and 1560.

### iii. Weapons technology

The presence of dedicated arrow loops is surprisingly rare in any tower house in the Survey region although the ogival loop could be used for this purpose. Only Kilgobbin has loops designed for the longbow. The absence of arrow loops probably reflects the widespread use of the short Irish bow, flexible in both senses.

Features that can be incontrovertibly identified as gunloops are absent from the RE tower houses; the 'hour-glass' embrasure's resemblance to mid-sixteenth-century Scottish examples is fortuitous, but could be the product of 'parallel evolution'. The weight of dating evidence is firmly against a mid-sixteenth-century date, but it may have important implications for the first use of hand-guns by the Gaelic Irish. The Survey region's special trade links may have made it an early conduit for arms. English concerns with this aspect of the thriving fisheries trade were recorded in the Sixteenth Century (de hÓir 1982, 85).

The first firm evidence of guns is seen at Kilcrea (GE) where 'inverted key-hole' loops are employed. It would be unwise to date such a feature too securely but it is worth commenting that they were



adopted in Scotland in the mid-fifteenth-century (Maxwell-Irving 1970-1, 203). It is probable that they were adopted in Gaelic Ireland at about the same time.

The majority of the GE tower houses can be independently dated to after the mid-Sixteenth Century through the presence of gunloops intended to accommodate the musket. The lavish provision of loops at Ballinoroher shows that muskets were not treasured rarities but were sufficiently common to play an important role in the de-stabilisation of Gaelic society (Chapter 6:d).

## 5:e The spread of the tower house throughout the Survey region

It is possible to give approximate dates to all the well-preserved tower houses in the Survey region through the comparative technique pioneered by Westropp (Donnelly 1994, 19). This is done by combining the conclusions arrived at in Section 5:d with the variation of entrance layout observed in the surviving structures. Only four fragmentary tower houses in the Survey region cannot be dated to within about fifty years by these techniques. The dating technique used is similar to that employed by Jordan in Wexford, where he concludes that '...the most secure way to date a structure is to take an overview of all usable indicators, and to conclude on the basis of a consensus for each structure' (1991, 251).

Which variant of raised entrance came first? To recognise the type it is necessary to generalise about other types of evidence associated with the RE tower house. The SRE tower house is dated by documentary evidence to the last quarter of the Fifteenth Century. The implication is that the SRE tower house was preceded by FRE house as the form most similar to it. The LRE<sup>variant</sup> is by implication the earliest of all. The LRE tower houses show other features in their layout, features and masonry which could be termed 'archaic'. Recurrence of features and the implied presence of the same masons in LRE and FRE and in FRE and SRE tower houses shows that the 'first wave' occurred in a short time within the Fifteenth Century from c.1425. This broadly fits conventional thinking about tower house dating which sees their construction as mostly occurring between 1450 and 1550 (Ó Danachair 1977-9, 158). The high concentration of fifteenth-century tower houses in one geographic zone is however unusual. The widespread phenomenon of regional variation observed in other parts of Ireland, and now widely accepted (McKenna 1984, 61), is therefore particularly well illustrated in the Survey region.

Because, with rare exceptions, it is only possible to suggest an approximate date range for each tower house, the dating is here presented as 'spot-heights' in a contour survey and plotted using a standard computer contour-survey program (Fig. t). It has been thought appropriate to include the more reliable published dates of tower houses immediately outside the Survey region (such as Blarney) to set the Survey region more clearly in its context. Each tower house has a range of uncertainty in its date, meaning that there is, in effect, an 'early date', a 'mid-date' and a 'late date'. The dates shown are the 'early date'.

A random distribution of dates across the Survey region would have produced a chaotic contour survey; the contours instead clearly demonstrate that geographical distribution is closely related to the date of the tower house. The 1490 contour in Figure t runs north-south demonstrating the manner in which tower house construction was previously almost restricted to the western peninsulas. Only Coolnalong interrupts an otherwise consistent pattern. The lower eastern part of West Cork is also apparently an area of early tower house construction. Again, a border can be discerned running NNE

marked by the 1500 contour. The areas of East Muskerry, Kinalmeaky, East Carbery, Barryroe and Ibane were also areas of fifteenth-century tower house construction, the form making an early appearance in the militarised area west of Kinsale, an area of direct conflict <sup>between the</sup> Desmond, Barry Oge and MacCarthy Reagh <sup>clans</sup> (Fig.c). The homogeneity and near contemporaneity of the single 'wave' that swept West Carbery is not present. Unlike the western 'zone' construction of tower houses, it continued well into the late Sixteenth Century.

The GE tower houses occur within a sharply defined geographical inland region in which no tower houses of any kind had previously been built. This is an area of interior hill ranges covered by *podzols*, peaty gleys and climatic peats. The map illustrates clearly the 'colonisation' of this marginal area by GE tower houses from all sides. The tower house only gradually spread into these marginal lands, long after they had 'saturated' the coastal and navigable riparian zones. Very few tower houses were ever built on the mountainous Beara peninsula and West Muskerry. Their complete absence from the western part of the Beara peninsula means that it would be misleading to include this area in the map.

The RE tower houses, like the castles in northern Co. Donegal (Ní Loingsigh 1995, 134), were overwhelmingly situated with access to the sea or a navigable river. McAuliffe has commented that in Kerry only low-lying relief was an important factor in siting (1991, 133), such a simplistic model does not however apply to the Survey region, perhaps because of the greater prevalence of areas of intermediate altitude.

Perhaps the most important insight to emerge from the 'date contour' survey is the clear geographic spread of RE tower houses from certain nodal points and the absence of such a pattern for the GE tower houses. This implies that the regional variation that has been observed elsewhere in Ireland (i.e. Knockgraffon, Co. Tipperary (Neill 1984, 75)) is the result of a more complex process than the development of local styles. It seems more probable that the regional variation is the result of the dynamic relation between local tradition and the gradual development throughout Gaelic and Gaelicised Ireland of a consensus on tower house design. A phenomenon whereby, due to power politics, it was not easy to build a new tower house in the immediate vicinity of an old one is clearly observable. Great differences in the date of neighbouring tower houses <sup>are</sup> ~~is~~ also unusual. The building of a new tower house was quickly imitated or not imitated at all.

The process of 'saturation' meant that tower houses were most easily constructed in areas where the process would not be challenged; in the Survey region this is illustrated by the 'colonisation' of the interior hill ranges, where clans such as the O'Donovans, Learys and Hurleys could build new tower houses because they were the undisputed masters of that region. In the final quarter of the Sixteenth Century these marginalised clans were able to provide themselves with more modern tower houses than the coastal clans and their powerful neighbours to the north and east.

The density of tower house distribution in Co. Cork (0.112 per square mile) falls well below the high concentration of construction observed in Limerick (0.38 per square mile) but is well above the average for the counties of Ulster (Craig 1982, 95-6). Density of tower house distribution was very varied in West Cork. Tower houses were more densely distributed along the coast (except the Beara Peninsula) than inland. Inland GE tower houses tend to be larger and rarer (Fig. d). Nowhere does the inland density approach that of Limerick, but there were greater densities of tower house construction in certain areas, such as the Bandon valley where tower houses of all dates occur. Griffith's 1851 land valuation (Smyth 1993, fig. 16.1) shows that this area on the north-east border of the Survey region then contained its finest farmlands although it was heavily wooded as late as 1600 (McCracken 1971, 45).

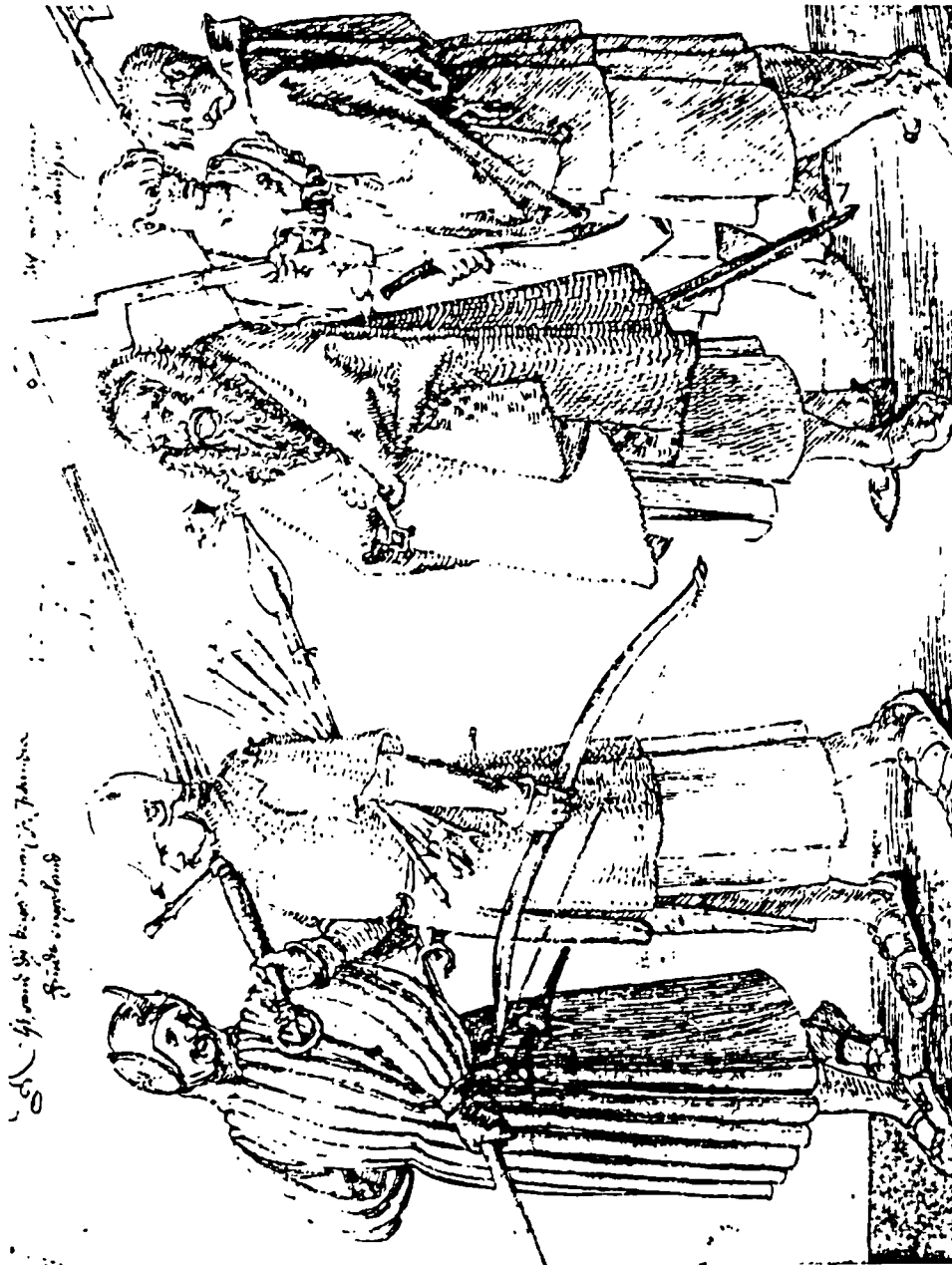
The other chief concentration of tower house construction was in the Ilen watershed and the coast surrounding Roaring Water Bay to the west of it. This area had formed a focus of Anglo-Norman settlement (Nicholls 1993b, fig. 6.1) probably for much the same reason it was later to be parcelled out amongst several septs of the MacCarthys (Fig. c). No tower houses survive in the vicinity of Skibbereen but extrapolation from the 'date contour' map implies that the destroyed tower houses were of intermediate date (c.1500).

Densities are very low in the Sheep's head peninsula and the hills south of Bantry; the Clan *Taidgh Rua na Scairte* did however build two tower houses, now destroyed, in this upland zone, probably prior to building destroyed a stronghold at Coolnalong. The 'date contour' maps give the impression that the Beara peninsula was an area of early tower house construction which is to say that the two tower houses that once existed were of fifteenth-century date. No sixteenth-century tower houses were built at all. The two O'Sullivan Beare castles were directly controlled by the ruling family; Dunboy was even larger than Blarney. This clearly illustrates the link between rarity and large size. The only other (definite) tower house that existed on the peninsula (Foildarrig [48]) was held by a sept of the MacCarthys in an area outside the O'Sullivans' jurisdiction. It may therefore be inferred that societal as well as relief differences in the O'Sullivan Beare *pobal* actively discouraged the building of tower houses or any other form of defined permanent fortification except for the highest elite (Chapter 6:c). The 'colonisation' process observed in the inland hill zone are absent.

In conclusion, the Survey region incorporates physical variations that make it a microcosm of Cork at large, a county of strikingly varied terrain. These variations make it difficult to apply geographical models of tower house distribution of the sort used for the ringforts in Co. Meath (Barrett & Graham 1975, 40-1) where the terrain is much more homogeneous. Such studies attempt to explain the distribution of particular settlement forms by reference to specific variables (*ibid.*). In Meath it was observed that the distribution of surviving ringforts was lowest in the areas of most intensive Norman settlement; this contrasts with the perceived pattern of tower house distribution in Tipperary (Cairns 1987, 7) where they closely follow the pattern of Anglo-Norman settlement, a phenomenon observed

throughout Ireland (Mallory & McNeill 1991, 290). A detailed study of ringfort distribution in the area surrounding Skibbereen shows that 80 per cent. of the surviving ringforts are located below 120m (Fahy 1969, 156), but the many uncertainties that hinder their study (Barrett & Graham 1975, 42) mean that their relationship to the distribution of tower houses can only be touched upon here (Chapter 6:f).

The apparent absence of any tower houses or precursors prior to c.1425 does not sit happily with the 'revisionist' view described by Donnelly (1994, 51) (Chapter 6:e). A less expected pattern that emerges is a deep hiatus between the 'first wave' of construction c.1425-1490 and a 'second wave' that occurred between c.1570 and 1600 almost entirely outside the area affected by the first wave. A similar first wave was inferred by Westropp in Limerick between c.1390 and c.1490, tower house construction being 'feverishly active' between 1440-90 (cited Donnelly, 1994, 67). Although Donnelly casts doubt on the early commencement of this wave (*ibid.*), the general pattern resembles that in the Survey region except that there is no defined 'second wave'. It is now necessary to see how the first wave differed from the second wave. To what extent can they be regarded as different responses to different circumstances?

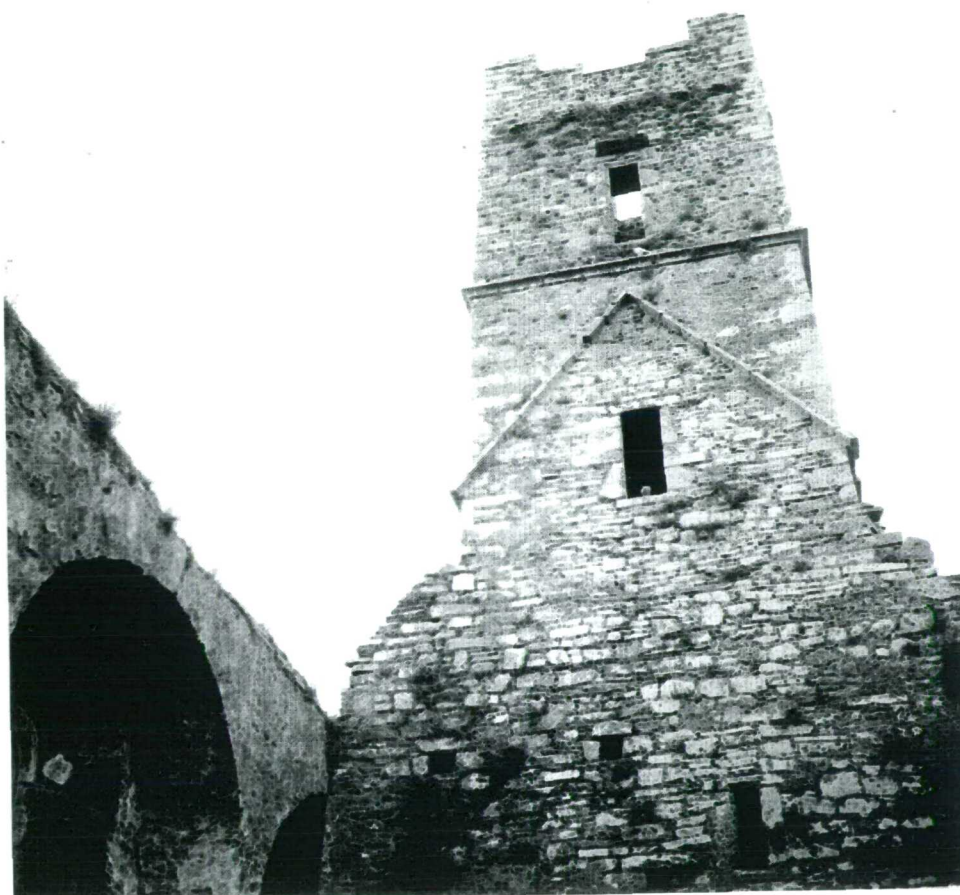


**Figure u**

Dürer's drawing of Irishmen, dated 1521 (after Harbison 1975/6)



Figure v  
'An Irish banquet' (John Derrick's *Image of Ireland* 1581)



**Plate U**

Friary refuge tower (Timoleague)





**Plate V**

Kilcoe church, chancel window

## CHAPTER 6: THE ROLE OF THE TOWER HOUSE IN THE GAELIC SOCIETY OF THE SURVEY REGION C.1400-1600

### 6:a The origin of the tower house and its adoption in the Survey region

If the tower house was adopted as a supplement to existing settlement forms, there is a need to briefly consider the form such settlement took, imperfect though the evidence is. The question 'where did the tower house builders live just before they built them?' has not been posed. Our 'complete lack of knowledge of the Gaelic Irish settlement patterns' (Barry 1987, 200) makes such speculation difficult but tower houses are surely excellent evidence of settlement although biased towards one end of the social spectrum.

The origin of Irish tower houses is a subject of complexity, where '...different academic opinions have been highlighted with some of the views of some academics in clear contradiction to those expressed by others working in the field...' (Donnelly 1994, 49) so much so that some researchers have queried the very need to '...look for any one source of origin...' (ibid., 72).

Because it is impossible to separate the tower house's adoption in the Survey region from its origin in Ireland as a whole the views expressed here inevitably have a bearing on the subject of tower house origins at large.. The author is however less concerned as to *when* the tower house was adopted and more *why* it was adopted. What types of stronghold and dwelling existed in the Survey region prior to the construction of the first tower houses? Place-name evidence can throw valuable light on the role of sites prior to the building of tower houses on them, but their meanings can subtly vary throughout different periods and parts of Ireland. There has also been deep disagreement about the date and final abandonment of ringforts.

The distribution of RE tower houses reflects the pre-tower house pattern of settlement, and it was only in the Sixteenth Century that tower houses were built on 'green field' sites. Several tower houses in the Survey region stand in ringforts, a phenomenon widely observed elsewhere in Ireland in the Dingle peninsula (Cuppige 1986, 175), West Galway (Gosling 1993, 161) and Tipperary (Cairns 1987, 6); it is difficult to explain all these occurrences as the result of re-occupation.

The various structures referred to as *dún*, *rath*, *lios* and perhaps *lias* (see Gazetteer) were certainly occupied in the Survey region, the question is when? Many more ringforts than tower houses survived in the Nineteenth Century and they were no doubt even more common than is apparent from the 6 inch O.S. (Barrett & Graham 1975, 42). The possibility that ringforts were occupied and perhaps even constructed after the Norman conquest must be seriously entertained (ibid., 35-6; Proudfoot 1970, 44-5). Physical evidence indicates continuous occupation of some ringforts in the

Survey region into the late medieval/early modern period. Continuous occupation elsewhere in Munster is implied by a 1317 reference to Co. Clare in which '...the people kept quiet, chiefs abiding in their strongholds ...ollaves in their raths ...and every layman in his liss' (Barrett & Graham 1975, 36). This reference is about a century before the first tower houses were built in the Survey region, but there is no reason to suppose that ringforts were promptly abandoned soon after 1317. If there was no overlap between the occupation of ring forts and tower houses it is necessary to argue that the upper echelons of society lived in transitory and undefended settlements which left no mark upon the landscape during the intervening period. Such an abandonment cannot be discerned in the documentary evidence. *Rath Dreóáin* (Rathruane) was occupied in 1297 by the O'Mahonys (Ó Murchadha 1985, 232) and the implication is that other members of the *derbfine* were housed in the lesser ringforts of Ivagha. There was a lack of excavated dating evidence for the ringforts of the Survey region in 1969 (Fahy, 149). Only a very small number of <sup>ringfort</sup> excavations have ever been carried out in Ireland (Limbert 1996, 253) and widespread medieval use cannot be disproved. Two ringforts in the Survey region have or had mortared masonry structures other than tower houses, indicating late medieval occupation with fair certainty (Ballyourane, Knockeens). An 'overlap' period in which tower houses and ringforts were used in the Survey region is indicated by such sites as *Ardintenant* [17]. The absolute lack of mention of ringforts in the literature of the Tudor reconquest of the Survey region does however imply that ringfort occupation did not persist locally beyond c.1550, except perhaps at a very low level of society, but they were still occasionally occupied as late as 1600 in Northern Ireland (Nicholls 1993a, 405).

The Norman conquest has been linked to a move away from arable to pastoralism by the Gaelic peoples; as a result of the conquest they lost their best arable lands (Simms 1978, 74). The expansion in herding was probably a main cause of deforestation between 1400-1600, a period that coincides with the period of tower house building. Population increase is implied, although hard evidence is lacking. The pendulum seems to have swung back towards arable farming. Reduced pastoralism may have been one factor that had, prior to 1579, caused the Gaelic chieftains of West Cork to abandon raiding in the Survey region (O'Mahony 1910, 9). Relatively undisturbed conditions are needed to build stone castles (Stell 1985, 196) and political change in the western part of the Survey region between the Fifteenth Century and the time of the Down Survey seems to have been slight (Ó Murchadha 1994, 33). Could the tower house's early adoption have played a role in inducing the 'remarkable stability' of Cork Gaelic lordships commented on by Nicholls (1993b, 157)? Whatever the reasons, the tower house form was firmly established in the Survey region by 1450.

There is little agreement about where, when and how Irish tower houses came into existence. The 'revisionist' school see a direct connection between putative fourteenth-century Anglo-Norman castle construction and tower house construction with a series of intermediate forms connecting the two but no convincing link has been established. The subject has been analysed at length by Donnelly (1994, 51-82) and he concludes by placing the '...onus ...on the revisionists to produce their evidence to

support their arguments for a fourteenth-century origin for tower houses.' (ibid. 81). He then concludes that the 'classic' dating of tower house origins must stand until a stronger case can be made against it.

The type of people who built and used tower houses are usually believed to have been 'a free tenant class of landholders who came to prominence in the aftermath of the Fourteenth century changes in Irish social organisation' (ibid.) but there has perhaps been too little study of their role in a 'pure' Gaelic milieu. The language used in the 'traditional view' reflects an 'Anglo-Normancentric' view of the subject that cannot be applied to much of the Survey region. The dating of tower houses in the Survey region agrees in general with the 'traditional view' but in little else. Much of the Survey region was never, or only briefly, infeudated, and the Western peninsula zone was never conquered; despite this, it became an unparalleled zone of early tower house construction.

The normal view of Irish history as a series of invasions and bloody counter-invasions and disasters, is now increasingly questioned (Abraham 1991, 458). The disturbed conditions elsewhere were largely escaped by the Survey region in the Fourteenth and Fifteenth Centuries. This rules out the Gaelic reconquest, the Bruce invasion and other disasters as pivotal in the adoption of the tower house, whatever role unrest played in the Sixteenth Century.

In the context of Scottish tower houses Stell comments that 'Architectural behaviour is a somewhat uncertain, confused and erratic barometer of contemporary conditions.' (1985, 196). The adoption of a certain architectural form does not automatically reflect or indicate sweeping changes in the organisation of society. The earliest tower houses in the Survey region such as Ardintenant and Dunbeacon [7] were embedded in the ramparts of ringforts while other ephemeral structures probably continued to stand within the ringforts. By providing a 'package' of functions, the RE tower houses were expected to *enhance* pre-existing settlement forms rather than *replace* them. The earliest tower houses were built by a society that had reached a 'critical mass', where the utility of these buildings finally outweighed the inconvenience of building them. One of the problems in dealing with the origins of tower houses is the need for a craft infrastructure to be in place before a new form of structure can be 'adopted'.

Some researchers side-step the issue of origins by regarding the tower house as a 'spontaneous regional re-invention' (Cairns 1987, 10; Donnelly 1994, 72), a view difficult to prove or disprove. It is worth examining some of the arguments behind this apparently simple solution to the problem given '... that there are only a limited number of ways in which individuals can build to protect themselves.' (Donnelly 1994, 72). Jordan sees the tower house as '...evolving out of a need [rather than] ...being copied from elsewhere...' (1991, 259). It is true that a tall thick-walled structure with several floors is a form of structure which minimises the resources required for its construction and its defence, but a ringfort was an even more easily constructed form of defence, needing neither special materials or

skills in its construction. Tower houses had to offer additional features that traditional enclosures lacked to be worth the effort and expense of construction. Unlike a ringfort, a tower house was no use until it was completed, perhaps years after being started. Long-term planning and the 'ring fencing' of resources for a specific purpose had to become accepted concepts. The accomplishment and high level planning required to build Ardintenant were much greater than those seen in, for example, a New Mexican *pueblito*, attractive though the analogy is between Irish tower houses and other structures (Donnelly 1994, 73). This *caveat* aside, the resemblance of Survey region tower houses to the tower houses of the Mani in the Peloponese is remarkable (author's observation). This shows that the process of 'convergent evolution' has some validity; the difficulties arise as to the confusion between this and conscious imitation. The intense regionalism recognised in the Fifteenth Century shows that geographical proximity is a factor in determining the distinction between chance similarities and significant similarities. We should first look no further than Co. Cork.

The builders of the first Irish tower houses had excellent 'relic' Anglo-Norman prototypes to imitate if it is necessary to assume such imitations took place. These castles were conveniently distributed all over the conquered part of Ireland and were certainly commoner and in better preservation in the Fifteenth Century than today. McNeill avoids settling for either the 'introduction' or 'imitation' arguments (1992, 14). It is certainly unwise to describe a building form in the same language used for a biological entity, using terms such as 'introduction' and 'evolution', but it is hard to explain Ardintenant as an inspired invention, designed from scratch without reference to any other building. The 'relic imitations' theory does have the advantage that it does not require a single continuous building tradition to have been in operation.

Are there any grounds that support the hypothesis that some of the tower houses are directly imitative of Anglo-Norman 'castles in a local tradition' (as McNeill calls them) or the 'small keep' of older literature (Leask 1951, fig.23) exemplified in Cork by Glanworth (Waterman 1967, fig.2) and Ballyderown (O'Keefe 1984, fig.14). McNeill (1997) conveys the degree to which these colonial small castles and hall houses were standardised (*ibid.*, 146). They resembled tower houses in several respects, but also had important differences that have usually been obscured by later alterations. They were essentially stone boxes comprising a basement and a large hall over, the *raison d'être* of the building. The first floor was of timber (usually replaced by a barrel vault). A raised entrance was the usual means of ingress in the lesser stone castles and hall houses of the Anglo-Norman gentry (*ibid.*, 154). It was always positioned near one of the angles, but could be in either axis of the plan (Athenry; Greencastle, Co. Down: Jope 1966, fig.137; Glanworth, Co. Cork: Waterman 1967, fig.2). Original ground entrances are apparently rare. The inclusion of a 'true' hall within the structure shows that these buildings, like the later tower houses, provided a 'package' of features necessary for the Anglo-Norman gentry. Their situation indicates that some were undoubtedly meant to function independently of other structures or enclosures (McNeill 1997, 151).

There are seven structures, mostly fragmentary, from this period (c. 1185-1250) in East and South Cork (Power 1993b, 214-217). Power comments that 'These remains are now in such fragmentary condition as to suggest that neither their construction nor subsequent maintenance reflected a strong and continuous military need' (ibid., 214). The Anglo-Norman presence in the Survey region left no surviving hall houses apart from Carrigrohane just outside modern Cork city (ibid., 215). <sup>see below</sup> It is however probable that further examples existed (see below).

It is necessary to give some idea of the scale of Anglo and Cambro-Norman castellation in the Survey region prior to the period of tower house construction. Place-name evidence is some use in tracing the shifting frontier; the Cambro-Norman Barry family built *bretasches*, bratticed timber structures, during their westward drive into the Survey region: 'Brittas' occurs in Island Parish (O'Donoghue 1986, 101) in Carbery and twice in the Barony of Ibane and Barryroe (ibid. 119, 123). More solid constructions may have existed at Dunamark near Bantry and at *Dún Mic Oghmainn*, a structure Ó Murchadha places near Myross (1988, 75). These were probably built by a member of the Carew family, who with the FitzStephens briefly held the southern coastal zone of West Carbery. Other examples may have existed at Ring near Clonakilty, built by Lord Arundel of the Strand (Burke 1910, 29); *Mac Carthaig's Book* under the year 1214 also mentions the construction of castles at Timoleague [34] and Glandore (ibid. 74), while *Dún na nGall* (Dunagall near Baltimore) and *Dún na Sead* (Baltimore) were built in the following year according to the *Annals of Innisfallen* (Healy 1988, 181). Remnants of a hall house built by the De Cogan's have also been seen at Castlemore (Salter 1993, 106-7).

The very poor condition of the existing structures in East and South Cork indicates that exceptional processes of destruction have been in operation. The repeated destruction of *Dún Mic Oghmainn* shows that the Gaelic Irish destroyed these castles, rather than occupying them (Ó Murchadha 1988, 76). After the battle of Callan Glen (1261) and the subsequent expulsion of the Lordship of Ireland from West Cork in 1326 (ibid., 77) only the structure at Baltimore seems to have been re-occupied by the Gaelic Irish. This 'strong castle' is mentioned in 1413 (O'Donovan 1849, 93) and was destroyed in 1537, but it is probable that the existing structure follows the lines of an Anglo-Norman hall house predecessor. The structure at Dunagall is a particularly unfortunate loss: it survived until the Nineteenth Century (Healy 1988, 181). A mote (author's observation) at Glandore formed the basis for a tower house built hundreds of years after the destruction of Barrett's castle here. The first tower houses in the Survey region seem to <sup>have copied</sup> be based on hall houses in areas of East Cork and other parts of Munster that had been sufficiently strongly held by the Gaelicised descendants of their Anglo-Norman builders to permit continuity of occupation into the late medieval period. How does the LRE tower house compare with the 'standard' Anglo-Norman hall house? Some features may have been imitated from them by the builders of the 'type' LRE tower house, Ardintenant. These are:

- a) the use of a sharp base-batter terminating at first-floor level;



- b) a raised entrance placed near an angle;
- c) the use of drawbeams to secure doors;
- d) intramural straight flights of stairs, rather than spirals;
- e) garderobe chutes;
- f) paired window seats;
- g) a rectilinear plan;
- h) a 'hall'-like principal chamber;
- i) the absence of lesser rooms on each floor; and
- j) absence of machicolations.

It is arguable that one or more of these features could be readily re-invented, but the assurance with which all these features are supplied at Ardintenant makes it extremely improbable that they were all re-invented there for the first time. Lost prototypes seem to be indicated, but the form these took must be conjectural. The presence of a chute for a third-floor garderobe which was never actually built (Ó Laoghaire 1981, 20) at Ardintenant shows the experimental nature of this tower house. The widespread RE solution to this upper garderobe problem had yet to be devised. The technical problems of 'building tall' were already solved. The virtuosity of the masonry at Ardintenant prevents there being any confusion between the adoption of the tower house form and the craft tradition; whoever was responsible was the inheritor of a craft with a long ancestry. Before dealing with this essentially social development, it is illuminating to highlight the manner in which Ardintenant differs from typical hall house practice:

- a) the ground-floor chamber acted as a cattle byre, using a special independent entrance;
- b) the principal chamber or 'hall' is elevated by the building two additional floors below it; and
- c) a barrel vault is provided to insulate the principal chamber from fires in the lower part of the building.

The majority of hall houses were later adapted to have both (a) and (c); it is therefore justifiable to see these features as the defining marks of tower houses. It is as if a mason chose to adapt the hall house format to make it more suitable for the requirements of Gaelic society. The absence of a ground-floor entrance (a legacy of Norman keep design) would have seemed very impractical in Gaelic society where pastoralism was of paramount importance. Because an entrance for cattle would make the upper part of the tower house more vulnerable; a barrel vault was therefore provided to contain attackers and their fires. The barrel vault was also necessary to support a central hearth, a powerful symbol in Gaelic society; this ruled out the sort of wall fireplace seen in hall houses such as Glanworth (Chapter 6:c).

Why build tall? The symbolic impression of '...height for height's sake...' (Stell 1985, 201) no doubt played a role (Chapter 6:c) but the RE tower houses were no doubt used as beacons for navigation and

would have formed a vital 'early warning system' against piracy (Chapter 6:b). The tower houses were also influenced by their immediate precursors the refuge tower (author's observation). A tower in the Survey region at Ballincollig has been referred to as a 'building at the beginning of a typology' (McCullough & Mulvin 1987, 41); the simple structure is very tall, narrow and of nearly square plan, with a single raised entrance. It does not contain a principal chamber or cattle byre and cannot have performed any peacetime role. As such it falls outside the tower house corpus and its role seems to have been purely a refuge. A refuge tower is also incorporated within the tower house at Blarney, which it undoubtedly pre-dates (Crawford Woods 1896, 338-40). The unambiguous chronological relation of the two parts of Blarney supports McCullough and Mulvin's belief that Ballincollig is a very early form. Is this an isolated phenomenon in Muskerry or does it have a more general bearing on the origin of tower houses in the Survey region? Friary steeples in the Survey region apparently served a similar purpose (Pl. U).

Clues in the masonry indicate that a 'refuge tower' may have existed at Kilcoe [15] before the tower house, of which only the base-batter and cistern survive. This structure seems to have been demolished and rebuilt when the LRE tower house was added to it. The relationship between the earlier tower and later tower house is therefore much the same as at Blarney. The tall, slender tower house at Kilgobbin [29] may reflect the influence of these structures; but, with the exception of Kilcoe, it seems that the LRE tower house was the preferred form in the western peninsular zone by the time that building began in earnest.

Some 'curtain-wall towers' such as those at Dunlough [21] (Pl.S) and Ardintenant probably acted as refuges. Two tall narrow towers at Castlemore also fall into this category. In these cases the refuge towers are either undated or subsequent to an adjacent tower house. Monteen [35] arguably is not a tower house but another 'secular refuge tower'. If this structure could be dated more accurately it would indicate that a measure of 'evolution' as well as deliberate imitation led to the genesis of the RE tower house.

The refuge towers are therefore amongst the earliest stone and lime military structures in Gaelic Ireland with a good claim to be an ancestral form to other 'Gaelic Irish Gothic' tower houses.

Anyone who has visited Kilcoe and Kilcrea [30] cannot fail to be struck by the similarity in internal arrangement of the principal chamber, a similarity which also embraces such matters as cardinal orientation and the relative sizes of windows. Kilcoe is a sibling of the 'type' tower house Ardintenant and there is no reason why it should have a particular architectural influence on the distant Kilcrea. The similarities may derive from a lost common ancestor and are therefore worth enumerating:

- a) access/entry is in the south-eastern corner;
- b) garderobes are at the north-eastern corner;



- c) 'ceremonial' shelves and presses are in the western corners; and
- d) the largest windows face south and east.

It seems that both tower houses record the favoured arrangements of the timber halls or houses used by the *derbfine* of the Survey region when tower houses were first built (Chapter 6:c). The origin of the tower house is therefore neither the result of a sudden discovery of a novel architectural form or the introduction of the necessary technological skills into the Survey region; the pivotal decision that allowed the construction of the tower houses was the willingness to transfer to them the role that had previously been performed by the 'hall'. The term 'hall' is used here as a shorthand term for the *Tigh*, a form of Irish seigneurial timber structure of which no example survives and which is only an approximate parallel to the 'hall' in the West European feudal sense. The existence of a developed masonry technology that originated outside the Survey region is beyond doubt and it is implicit that this technology had its roots in the late Fourteenth Century, if not earlier. The craft was distinct from mason craft in the Lordship of Ireland and had its own system of measures. McNeill comments that '...the gap which earlier writers have discussed did not extend throughout the 14th century or from the Bruce wars of 1315-18; it covered at most 1355-1410. Even this should not be taken as indicating a complete hiatus in building...' (1985-6, 61). The dating of the <sup>L</sup>RE tower houses (c.1425-1450) closes the 'gap' even further in the Gaelic tradition of Ireland.

It is necessary to study what types of patronage drew mason craft into the Survey region, other than the demand for tower houses. The connection between ecclesiastical architecture and the construction of tower houses has long been recognised. The 'Late Irish Gothic' style has normally been studied in the context of ecclesiastical architecture, the distribution of tower houses shadowing it (*ibid.*, 64). There are grounds for connecting the adoption of the tower house with the spread of the foundations of mendicant orders: the 'second wave of foundations' from the mid-Fourteenth Century was rural and relied on the patronage of Gaelic and Gaelicised lords (Nicholls 1993a, 438). There is a polarity between the MacCarthy Muskerry castle at Kilcrea and the Observant Franciscan Friary that tradition holds was also founded in 1465 by the builder of the tower house (Nicholls 1993b, 173). The friaries founded at about this time on Sherkin Island (1449: Power 1993a, 350) and Bantry (in existence 1466: *ibid.*) point to a mid-fifteenth-century surge in building patronage. Although it is logical that the masons who built tower houses would also have worked on friaries, one cannot be demonstrated to precede the other. The concentration of foundation dates around 1460 indicates a surplus of resources as well as an outbreak of piety: this is the chief supporting evidence that there was a period of intensive tower house construction in the western and coastal parts of the Survey region at about the same time the Friaries were founded.

Leask argued that the remarkable success of the orders of friars in the Gaelic regions and the many friaries that were built for them are indicative of economic recovery after the disasters of the Fourteenth Century (Barry 1987, 191). This economic factor may have precipitated a wave of church

construction or reconstruction in the Survey region.

A conduit by which the necessary skills were introduced or re-introduced into the Survey region was required for this to happen. The church's organisation, or lack of it (Chapter 2:a) may have indirectly played a role in the adoption of the tower house in the Survey region.

Parishes were not formed in the western dioceses until the mid-Thirteenth Century (Nicholls 1971, 62). Some churches such as Kilcarrel in the Ivagha peninsula are mentioned in the Papal taxation records in 1199 (O'Donoghue 1986, 8) but some of the parishes in the Gaelic part of the Survey region were not formed until the Fifteenth Century (Chapter 2:a). It seems that an 'intermediate stage' of parochial organisation occurred in some areas where parishes were simply equivalent to clan *pobals* (Nicholls 1971, 61). These may have undergone a process of sub-division in the Fourteenth and Fifteenth Centuries, prompting the construction of new churches. Twelfth-century churches such as Kilcarrel and Kilcoe (Pl. V) were apparently reconstructed at the same time. Local lords generally claimed the advowsons of rural rectories (ibid., 57) and this presumably extended to patronage in the form of church reconstructions. Some of the regional parish churches were probably built in the Fourteenth century although only archaeology could confirm this (Chapter 6:f). The 'incidentals' as they are referred to in the construction industry were all in place to permit tower house construction.

Donnelly's critique (1994) examines most work that has been carried out on the subject of the origins of tower houses and although he is '... not a fervent defender of Leask's view' (ibid., 65) his conclusions support the 'traditional' argument by undermining the views of the revisionists who see the Gaelic tower house as a form that developed from fourteenth-century Anglo-Norman 'tower houses'.

Weak definitions have not eased the study of tower house. Donnelly singles out the 'Irish Gothic tower house' to emphasise the difference between this form and the multitude of other small defensive structures that are generally put into the overall category of tower houses; this is an important distinction. This sort of problem is illustrated in Wexford where Jordan (1990) selects 'tower houses' from the wide variety of buildings available for study. This area contained as many 'fortified houses' as tower houses, and O'Callaghan wisely refrains from calling them tower houses (1981, 2). When Jordan asserts that the tower houses of Wexford are generally turretless (1990, 36), it is not clear whether turreted structures are being unconsciously 'edited out' as non-tower houses. In that county there was no clear-cut distinction between them and other types of minor defensive structure.

In contrast, the Survey region is, with rare exceptions, an area of the 'Irish Gothic tower house' and nothing else. The idea of introduction from abroad has frequently been used to explain the appearance of the tower house, and there are grounds for seeing the very varied structures along the

eastern coast of Ireland as the result of a wide variety of influences from various parts of Britain and North France. A more purist definition of tower house would take into account the relative prevalence of 'tower houses' and other types of building in a given region. Areas where few other types of building exist, such as the Survey region, are concentrated in the Gaelic south and west regions of Ireland.

The picture of introduction from abroad is certainly applicable to Ulster where early fifteenth-century 'tower houses' existed (Jope 1966, 233) due to Scottish incursion (Mallory & McNeill 1991, 292). The regional variation between these buildings and the tower houses of Tipperary (McKenna 1984, 61; McNeill 1991, 291) is not the result of drift, but of wide geographic and ethnic separation; they are independent inventions answering a similar need. In contrast, the tower houses of Munster, including the Survey region can be demonstrated to be a continuum of related forms (Chapter 6:e).

Ó Danachair assumes that the tower house is a continental introduction but does not elaborate as to what part of the continent they came from (1977/9, 160-1). The mercantile or urban tower house is convincingly demonstrated as the origin of the tower house within the Pale (Davín 1982, 116) but these differ radically from the 'Irish Gothic' strain. Leask's 'ten pound' castles of 1427 (1951, 76) are directly contemporary with the RE tower houses of the Survey region but 'Political fragmentation of the country made a man a foreigner thirty miles from his own doorstep' (Simms 1978, 75). McNeill believes that the documentary reference to the 'ten pound' castles is no clear guide to their date (1997, 202) but the absence of any intervening concentrations of tower houses dating to the first half of the Fifteenth Century argues such against long-distance transmission of ideas. For different reasons, two very different social systems were generating tower houses at about the same time.

The Survey region, particularly the western peninsula zone, is demonstrated through its surviving monuments to be an archaic group of what Donnelly calls the '...true Irish Gothic tower house...' distinct from tower forms in the Lordship of Ireland. It now remains to be considered how the tower house, by slow degrees, was integrated into the everyday lives of the *derbfine* of the Survey region, passing from being an emergency refuge to a symbol of lordship.

## 6:b The changing function of the tower house

### i. The tower house as a centre of subsistence

Nucleated settlement was unusual in the Gaelic areas of Ireland (Nicholls 1993a, 399) and there is little certain evidence of urbanisation in the 'Gaelic' part of the Survey region prior to 1600 except at Rosscarbery. Nothing apart from tower houses and churches now survives in the landscape to give a clue to the nature and intensity of Gaelic rural settlement, but there are grounds for assuming that tower houses formed the nuclei of intensive seasonal settlement. Temporary towns of wattled huts were built to provide additional housing outside castles elsewhere in Ireland (Simms 1978, 91) and temporary halls could be built for special occasions (Mallory & McNeill 1991, 301). A sixteenth-century illustration of Carrickfergus shows the town surrounded by a penumbra of temporary Irish huts (*ibid.*, fig.7:34). The involvement of so much of the population in a cycle of transhumance (Lucas 1989, 58-9) deterred investment in permanent structures. This implies that tower houses, too, were unoccupied much of the year, when the chieftain went abroad with his entourage to enjoy the fruits of the 'coshering season' (Simms 1978, 79). Compared with other parts of Gaelic Ireland the population of the Survey region was relatively static and there were only three recorded *creaghts* or cattle raids in the period under question. Cattle raids seem to have become a princely sport when raids on Tipperary herds were organised by the first Earl of Clancarthy (Cronnelly 1864, 261) who invited his vassal chieftains, as if to an important fox hunt.

The relatively late adoption of tower houses and other permanent stone buildings in the Gaelic areas has been attributed to their social systems since the Eighteenth Century (Grose 1794); 'the manner of life of the Irish made them look on the confinement of a castle with something like abhorrence' (Gillman 1892a, 13). In the late Twelfth Century, the Norman invader John De Courcey built and bestowed two castles in the lands of MacMahon of Monaghan, who in a month demolished both, saying that he 'did not promise to hold stones but land', and that it was contrary to his nature 'to live within cold walls whilst the woods were so nigh' (*ibid.*). This attitude long persisted, but in the closing years of the Fourteenth century, it began to subside in certain parts of Gaelic Ireland, such as the Survey region.

The building of permanent settlements, bawns and castles was inimical to the '*creaghting*' way of life, as a contemporary English source makes clear in 1609 (Lucas 1989, 103), good evidence this lifestyle was not pursued in the Survey region, except in rare instances at the highest level of society

Seven of the tower houses described in this thesis were deemed by lawyers who compiled grants and other documents to have associated 'towns' (Copinger 1884, 40-44). However, none of these sites preserves any visible trace of civil settlement. In this context 'town' seems to mean little more than a place of habitation, great or small, a steading or 'toun' in the Scots sense (Kenneth Nicholls, pers.

comm.). These 'towns' were probably seasonal settlements built by the herdsmen of the chieftain's herds, but the references may in some cases refer to more substantial agricultural settlements and farm buildings. In some cases, the term 'town' may have been used as a legal catch-all to exert rights over any settled population, but it is certainly not universally applied.

Little is known about Gaelic rural settlement, but there is a growing appreciation of its regional variations (Nicholls 1993a, 404). The picture of universal pastoralism characteristic of much of Gaelic Ireland (ibid., 397) does not apply to the Survey region, where both corn and cattle were targeted for destruction by the English in 1601 (O'Grady 1896, 214, 271). A long-fallow system in which the land was left untilled to pasture for several years between each sowing was probably commoner than a regular course of crop rotation (Nicholls 1993a, 411). Intensive agriculture certainly seems to have been established in the neighbourhood of Rosscarbery by 1640, largely at the behest of the English settlers (Gillman 1895, 1-20).

Settlements are recorded as forming about castles (Nicholls 1993a, 404) and the tower house encouraged nucleated settlement in a society where it was otherwise unusual (ibid., 399); they also formed subsistence centres, where agricultural processing and specialised activities such as apple and vegetable growing were carried on, as well as milling and other activities requiring close supervision (Cairns 1987, 18). Hardly surprisingly, many now stand in farms (Chapter 6:d).

## ii. The tower house as a centre of navigation

A maritime way of life long pre-dated the construction of the tower houses and a large number of tower houses in the Survey region have coastal locations (Chapter 5:b,i). The site of Dunmanus [14], a natural fort and harbour, may have been utilised by sea rovers since the Ninth Century and it probably derives its name from a man of Norse ancestry (O'Donoghue 1986, 7). The RE tower house was ideal as a navigation beacon and for the observation of seafarers and foreign fishing fleets, and it may also have been used for signalling. This need for height was probably pivotal in the genesis of the Irish Gothic tower house (Chapter 6:a).

Many of the tower houses sited next to the sea have excellent views, but this was not the main reason for their locations. Only a handful of tower houses in the Survey region were built expressly to command a view of the sea while being sited inland. The ancient tale *Cath Finn Tragha* mentions stations along the coasts where watchmen were placed to signal the approach of an unexpected invader (O'Mahony 1909, 70) and as late as the Seventeenth Century pirates would attack without warning for booty and slaves (Smith 1893 edn., 253). Beacons could have been lit on the tops of tower houses in an emergency. Ardintenant was spelt *Ard-an-Tennail* - the height of the Beacon (O'Mahony 1909, 72) in the *Annals of Loch Cé* (year 1473; Hennessy 1871, 175). A fire signal on the top of the fallen tower house at Ardagh would have been visible to the O'Driscoll occupants of Dunalong [23], Donegall (destroyed), Inispyke (destroyed) and perhaps Oldcourt [16]. The population of the Ilan river

estuary would have valuable warning of suspect vessels.

Small and sheltered coves with narrow entrances were favoured for tower houses. The Irish used boats of shallow draft capable of being drawn up on the beaches by hand (Pepys Library MS 2934). None of the coastal tower houses in the Survey region seem to have been provided with artificial docks or quays. Dock building occurs sporadically in other parts of Ireland: Carrigafoyle Castle, Co. Kerry, was provided with a dock permitting boats to sail right up to the tower house (De Breffny 1977, 70) Galey, Co. Roscommon (Craig 1982, 103) and Ard East, West Galway (Gosling 1993, 157) also had docks. However, in the Survey region the inhabitants seem to have been content to moor their vessels in shallow natural inlets, hauling them onto the beaches for repairs as their descendants do to this day.

The only published documentary account of disembarkation in the Survey region (Glanbarrahane) indicates that lighters had to be laboriously used to transfer war supplies to the beach from vessels standing in the middle of the bay (Coombes 1972, 40) and this seems to have been the accepted means of importing goods.

The mention of a 'chief galley' (O'Donovan 1849, 95) shows that there were other means for a chieftain to show status apart from building tower houses. The absence of docks indicates that small vessels played the major role in trade. The pilgrimages to Spain carried out by the chieftains of this region show the capabilities of the larger Irish vessels, although the loss of an entire party of high-ranking pilgrims in 1507 (Coombes 1969, 17) gives an idea of how hazardous seafaring was in open vessels.

The prevalence of small, oared vessels permitted diffuse and flexible trading at the cost of volume efficiency and specialisation. This dispersal of trade even restricted the growth of geographically favoured harbour-towns like Baltimore.

A number of clans exploited the economic advantages of their coastal houses in the later part of the medieval period. The O'Driscoll clan exacted fishing and harbourage dues from foreign fishing fleets on a large scale (O'Donovan 1849, 103-105). They and other clans imported wine and munitions on a large scale by 'entertaining pirates and also Portingolls and Spaniards who cam to fish in these harbours' (de hÓir 1982, 85).

Unfriendly pirates had been a problem on the coast of the Survey region since the Vikings (O'Mahony 1909, 70). The early observation of sea raiders would allow the necessary precautions to be taken long before the raiders landed. Intercepting fishing fleets to exact payments relied on good prior warning. A seventeenth-century document relates:

'...The general commodities of this province [Munster] are corne, Cattle, wood, wool and fish. The last thereof it holds in every place, plenty is abundant of all sorts. But most so well known for the store of Herringes that are taken thereof in the promontory of [Ivagh?] that lyes [north?] of the [Fastnet?] and Baltimore Bay whereunto every year a great fleet of Spaniards and Portuguese used to resort (even in the depths of winter) to fish also for Cods...'  
(Lansdowne 242)

The *Pacata Hibernia* describes how Bear Haven (at the entry to Bantry Bay) afforded:

'...no small profit to O'Sulevan Beare whilst his castle [Dunboy] was standing; for the coast yields such abundance of sea-fish as few plaes in Christendom do, and many ships, whereunto at the season of the year (I mean at the fishing-time) there was such a resort of fishermen of all nations that *communibus annis*, although the duties which they paid to O'Sulevan were very little, yet at least they were worth to him five hundred pounds yearly.'  
(O'Grady 1896, 215)

A series of traditional O'Driscoll More harbour dues of 1608 indicate that a cash (Sterling) economy co-existed with a system of barter (O'Donovan 1849, 104-5).

Maritime chieftains ruthlessly defended their interests against the Cork and Waterford merchants but they were not pirates (O'Mahony 1909, 74). The legitimate profits from harbourage, pilotage and every conceivable service, down to the right to dry fish on rocks, were reserved by these chieftains. They also reserved the right of 'first refusal' of any goods that were for sale in their 'country' and if they did not need the goods on offer, they demanded the difference in price should the vendor succeed in selling the goods at a higher price to another individual (O'Donovan 1849, 104). By 1395 chieftains elsewhere in Ireland were reliant on trade as a source of wealth (Simms 1978, 67).

Masonry technology was never put to purposes such as building piers or moles to improve harbours in the region. The inability to dock heavy sea-going vessels must have progressively impeded trade throughout the Sixteenth Century and the fisheries may have suffered a change in the unpredictable spawning grounds of the pilchards. This, combined with the reassertion of English naval power and the blow to O'Driscoll sea power by the Waterford fleet in 1537, would have sufficed to end a period of prosperity that had probably endured for more than a century.

As in North Donegal (Ní Loingsigh 1995, 134), economic and social life was largely dependent upon boats, due to the difficulties of land transport. The O'Mahonys seem to have been competent and well-equipped sailors, meeting with the disapproval of the English authorities in 1586 (O'Mahony 1910, 12). Although no details of the O'Mahony naval force survive they are likely to have had a range of vessels typically used by the Irish, including small galleys powered by oars probably used for

interception of other craft and very manoeuvrable on this dangerous coast with its many reefs. O'Mahony makes the astute point that the entire O'Mahony economy was reliant on trade and fishing dues and in the documented Sixteenth Century it 'kept up a population that would be greatly reduced if it became mainly dependent on the land' (1910, 12). This localised 'economic boom' presumably commenced in earnest in the Fifteenth Century and provided the resources for the earliest Irish Gothic tower houses at a time

- C when the resources for stone castle building were not generally available. The form these resources took is important in understanding the mechanisms of tower house construction funding.

### iii. The funding of tower house construction

Is it appropriate to see the construction of tower house as an indication of a cash economy? The Gaelic economy was essentially coinless until the Sixteenth Century; coinage was known and used but it was not central to their system of exchange (Simms 1987, 148) and it seems to have been chiefly used for the purchase of imported luxuries (Simms 1978, 67). The soubriquet of the O'Mahony chieftain traditionally held responsible for the construction of most of their tower houses could be interpreted as 'of the exaction' (*Cabaicc*, O'Mahony 1909, 126) and there is documentary evidence that amongst the various Butler branches of Tipperary, forced labour was imposed on people in their lands for the purpose of castle construction (Neill 1984, 79). The Earl of Desmond is known to have imposed the *musteron* (a tax for masons) to pay for the repairs of castles, bridges and other 'public works' (Donnelly 1994, 78). There is no evidence of such direct impositions in the Survey region, but in the Fifteenth Century some of the labour and materials required for tower house construction were probably exacted from the population at large, following the custom of 'coign and livery'. These exactions could also consist of forcing the inhabitants to erect and repair buildings (Ellis 1985, 41). If muscle-power was supplied by impressment of landless labourers, the construction of a tower house could be a largely cash-free enterprise, aside from the employment of a few key craftsmen. There was, however, only so much that a chieftain could compel his 'churls' to do, particularly in the Gaelic region such as the west part of the Survey region. If driven beyond endurance, such people could move away with impunity (*ibid.*, 44), and it must be inferred that a largely professional workforce had to be hired if the work was to be carried out quickly.

Payment may have taken other forms than cash in the Fifteenth Century. In Fermanagh, some craftsmen were sufficiently important for their deaths to be recorded in the Annals of Ulster (Nicholls 1993a, 417) and a 'wright' or carpenter attained the status of *ollamh* for the whole county (*ibid.*, 1993a, 418). It is possible that such *ollamhnachts* were given to the fifteenth-century masons of tower houses; these included endowments of land (Simms 1987, 176). Can it therefore be assumed that the RE tower houses were built without the need for money to change hands? Forced labour could not provide the necessary skills and it must be assumed that each mason had a retinue of craftsmen such as banker masons and wallers; quarrymen would also have been needed, as well as carpenters. Iron, clothes, rope, lime, withies and other materials each indicate the existence of a separate craft. The



construction of a single tower house must have kept dozens of craftsmen in employment for years. Building has considerable social and economic implications because income must be assured to keep projects going (McNeill 1985/6, 61).

A 'medieval building industry' during the Fifteenth Century in such areas as the Ivagha peninsula would have allowed a new tower house to be started as soon as another was completed. A static workforce is implied but there is evidence for the movement of masons between neighbouring clans during the Fifteenth Century. An even more flexible approach was apparently the rule after the 1500-1550 'hiatus' and the movements of individual master masons can be traced over much greater distances (6:e). Any ties of patronage to individual clans disappear.

There is of course a link between wealth and the construction of tower houses, but this did not mean that the wealthier a clan, the more tower houses were built and the opposite could be said of such a powerful and centrally controlled sept as the MacCarthy Muskerry who continued to use an enclosure castle, Castlemore, a pattern observed elsewhere in Ireland (McNeill 1997, 206). Other factors such as political control were a powerful brake on tower house construction (Chapter 6:c). The better-documented situation in Limerick (Donnelly 1994, 229) implies that the building of a tower house was a cash transaction after c. 1560. After that date, while chieftains still controlled the construction of tower houses, they apparently did not have a mason *ollamhnacht* and, in the last two decades of the Sixteenth Century, the tower house masons became socially 'amphibious' beings, executing strong houses or tower houses for Planters, Old English and Irish landlords or chieftains. The final tower houses were wholly domestic strong houses, clinging to a time-hallowed external form for its symbolic significance (Chapter 6:c).

#### iv. The tower house and its changing defensive and strategic role

The first tower houses were employed very differently from the last: this process reflects other changes in the society that created them. The role of the chieftains changed, as did the emphasis on the holding of land as an expression of lordship. In a society where wealth was measured in animals and power in 'overlordships', land was of secondary importance. In late Gaelic Ireland, the absence of a centralised legal system, the low population and other factors made the land less valuable than the people and stock required to utilise it. The lord was wholly reliant on the exactions he could make of his tenants and if they chose to move on, the land was useless (Nicholls 1993a, 430). Elsewhere in Ireland, the location of tower houses played an important role in creating estates (Donnelly 1994, 47) as we would understand them.

Tower houses formed useful bases from which the movement of people and herds in and out of a clan's territory could be controlled, a role suggested by the siting of tower houses in Kerry (McAuliffe 1991, 133) and Wexford (Jordan 1991, 8). In the Fourteenth and Fifteenth Centuries it was probably not deemed practical or necessary to police the remote and mountainous areas of a clan *pobal*, except

when herds were driven into them. The RE tower houses, being concentrated in the densely populated coastal areas, were easily by-passed by any intruder in the hills; the capacity of a tower house to physically 'command' any topographical situation has been rightly questioned (Tom McNeill, pers. comm.). The RE tower houses defended nothing except what was behind their walls.

Land was only commanded by an RE tower house where topography permitted the easy defence of large herds of cattle. Rincolisky [19] seems to have been located to defend the isthmus between Cullamore and the mainland. Dunworley [74], Dunlough and Doonmacpatrick (Old Head of Kinsale; O'Flanagan & Buttimer 1993, pl.5.5) are other examples.

The first defensive element to be considered is the siting of the tower houses. The need for coastal surveillance may have encouraged the adoption of the tower over other forms of strongholds such as halls (Chapter 6:a). Occasionally, a tower house was built to gain sight of another tower house (i.e. Rossbrin [18]). Towers were, however, later built in valleys where the view was of little importance (i.e. Castle Salem [8]); by that date (c. 1500) the tower house form had taken on a full seigneurial symbolism.

The tendency for RE tower houses to be built in pre-existing settlements accounts for the apparently capricious way that some were built in sheltered fertile spots, overlooking excellent harbours while others were built above storm-blasted cliffs, miles from a convenient haven.

Often a chieftain in rebellion would commence by 'breaking' his castle (Nicholls 1993a, 404) to make them useless to the enemy. This indicates how little store the Irish set on castles as a means of defence in real warfare. It has been observed elsewhere in Ireland that strategic considerations were not taken into account when siting tower houses (Cairns 1987, 11). While some GE tower houses do command important strategic sites this is a usually late phenomenon. The siting of Carriganass [1] is the earliest (c. 1520?) example. Ballynacarriga [3] also commanded a natural east-west route along the southern edge of a marsh and a north-south route through the hills, although caution must be observed in making too much of such 'natural routes'. Castle Donovan's [4] site was chosen, with careful strategic thought, as an important defence against raids from the north. Valley siting also provided a certain protection against marauding armies unfamiliar with the area. It is associated, for the most part, with tower houses of very late date and may be a response to social instability during the Desmond rebellion.

The minimal provision for the use of weapons in RE tower houses indicates their passive role; the tower houses were not built for extended siege and like those of Knockgraffon, Tipperary (Neill 1984, 78) they were only suitable for small-scale engagements. Unlike those of Meath (Abrahams 1991, 309), they were secure at the expense of factors like comfort or show. Their purpose was to give protection from cattle raiding and pirate raids, without the need for a ward. An RE tower house could

be secured against raids by any able-bodied people on the scene. The castle ward was a later phenomenon associated with the GE tower houses. The extreme steepness of the stairs and other difficulties of access in the tower house (Cairns 1987, 14) imply that the clay and timber 'hall' or *Tigh* was used in normal times. In Muskerry the 'refuge tower' was meant to be only briefly occupied. Soon however a secure facsimile of the *Tigh* was constructed in stone several metres above the ground; an acceptance of the fact that long periods of occupation would occur. It is possible that the principal chamber may, at first, have been only used for ceremonial/judicial functions attended by the chieftain, *derbfine* and *ollamhs*. Such individuals would tend to be able-bodied due to their better diet and the problem of access for everyday needs was less pressing.

Moryson (c.1600) states how the cattle were underfed, being kept in castle bawns all night without 'a lock of hay' (Lucas 1989, 34). While the Irish were concerned more with the number than the well-being of their herds their animals would have sickened after a few days in the ground-floor chamber. This feature could not normally be used because of this. Cattle raids were brief however and the chamber would form an excellent defence for prized breeding specimens and horses. A large sept like the *Sliocht Diarmuid Reamhair* of Kilcoe had many hundreds of cows in the early Seventeenth Century (Coleman 1927, 98) which could not possibly be housed in the ground-floor chamber.

Towards the mid-Sixteenth Century the simple and ephemeral hall seems to have been supplanted by a 'domestic wing; offering more comfort and security. Additional defence to the entrance coupled with easy access to the raised entrance were provided by these buildings; a late seventeenth-century timber stair for this purpose survives at Castle Salem (De Breffny, Ffolliot 1975, 75) but the domestic wing at Castle Salem may have originated as an open court of the sort that survives at Kilcrea. The open court at Kilcrea was entered from the north and is nearly intact (Butler 1908, 175: plan). Parapets along the north and south walls (Pl. 30,ii) and a defensive tower show that the enclosure was defensive not domestic, although it could only have held a tiny fraction of the MacCarthy Muskerry's herds.

The 'eastern extension', open or roofed, is common elsewhere in Ireland and domestic structures of this sort existed at Cloghan [24] (Lough Hyne), Castle Donovan and Castle Salem. A watercolour made in 1842 depicts a single large building at least 21m long and at least two floors high appended to the west wall of Castle Donovan (Royal Irish Academy Ms. 12.T.10/30). The surviving chimney at Castle Salem shows that the 'late seventeenth-century' house is perhaps a century older in part. The offset position of Carriganass within its sconce was to create space for a large house, now vanished, but visible on the Down Survey (Bibliothèque Nationale), appended as ever to the entrance wall of the tower. Permanent forebuildings were a frequent adaptation in the Survey region. The forebuildings and associated enclosures were generally extended away from the entrance-wall of the tower houses of the Survey region rather than surrounding it. The other sides of the tower house were left exposed because they were virtually impregnable to small fast-moving raiding parties. The lack of a serious

intent in defending the outer rampart is apparent at Kilcrea, a good example of a 'hard centre' castle surrounded by earthen 'baileys' and ancient ramparts.

Tower houses in Ireland were generally surrounded by enclosures called bawns (*Badhún* - cow enclosures) although the term's exclusive association with tower houses is a modern usage (Nicholls 1993a, 405). These are distinct from 'eastern extensions' and 'sconces' and the Irish may have referred to them as *daingen* for in 1457, *Ua Ruairc* of Brefnei in Leitrim evaded a large raid by putting his 'flocks and herds into a keep' - *do cur a caeraidheacht a n-daingen* (Lucas 1989, 118). Little survives of them in the Survey region where the tower houses were built as self-contained structures which were very rarely built at the same time as adjacent structures. The bawns however were critical to the operations of the strongholds as a centre of subsistence. Most were added to in various ways. These subsidiary buildings took many forms but with a sole exception nothing, or only shapeless fragments survive of these readily demolished structures.

The bawn enclosure is quite distinct from the forecourts or buildings joined to the east face of the tower. The former structures are comparatively well represented but the larger enclosures survive at only one tower house in an intelligible form (*Dunanore* [25]) although an example is also known through excavation (Dunboy, Gowen 1978, fig.3). The restricted Dunanore site was divided into several compounds, with no inter-connection. The tower house was intended to guard a western bawn, entered through a gatehouse next to the tower house. The western angles of the bawn were defended by small turrets with gunloops (Fig. 25,i). The building to the east can be identified as a kitchen by its vaulted bread oven. Some tower houses had 'topographically dictated' irregular enclosures around their bases which fall into no clear category, an example was excavated at Castle Inch [54] (Fahy 1957, fig. 1).

We know from documentary sources that several tower houses in the Survey region had external halls. The ground-floor hall, stone, clay or timber, was probably a constant feature of the *derbfine* stronghold. Stanyhurst in *De Rebus in Hibernia* (cited in Leask 1951, 124) stated that castles were (in translation):

'...united, by a close connexion,[with] fairly large and spacious halls, constructed of a compound of potter's earth and mud. These are not securely roofed either with quarried slates, or with rough hewn stones or tiles, but are as a rule thatched with straw from the fields. In these halls they usually take their meals; they seldom however sleep except in the castles because it is possible for their enemies with great ease to apply to the covering of the halls blazing torches..'

The term '...a close connexion..' accurately describes the relationship of the two structures, neither being subordinate to the other. These ephemeral timber and clay structures were probably universal features next to the fifteenth-century tower houses. Halls existed at Oldcourt (Coping 1884, 39) and

the destroyed castles of Lettertinish (O'Grady 1896, 210) and Inispyke (O'Donovan 1849, 95). Later GE tower houses seem to have not needed them, as in French seigneurial architecture (Jones et al. 1989, 87), a suite of 'high' and 'low-status halls' was provided in the fabric of a tower house itself.

The tower house may be thought of as the 'hard centre' of a 'soft settlement' (Neill 1984, 81) whose bawns provided defence against wolves (Ó Danachair 1979, 158) and thieves but not much else. It is now generally accepted that most tower houses were surrounded by clusters of buildings (Jordan 1991, 137).

Cairns believes that '...hardly any tower houses have wells...' (1987, 31) and the apparent absence of this feature would imply a lack of serious defensive intent; however such features are very readily buried and hidden from view, being only recognisable where provision for them exists in the architecture. Kilcoe, Dunmanus and probably Monteen had cisterns which would provide water during a siege. It therefore seems more probable that Jordan's assertion that it is '...possible that a sizeable proportion of all towers had wells...' is correct (1991, 177). Features elsewhere routinely identified as 'oubliettes' and dungeons may in fact have served this more mundane purpose.

In 1489, hand-guns were brought into Ireland from Germany (Grose 1794, xxxiv). Annalistic sources mention guns as being used by Irish troops two years earlier (Simms 1975, 108). The new weapon transformed tower houses from passive refuges to redoubts which could genuinely deter intruders by using a professional ward of gunners. The 'hour-glass loop' suggests that the matchlock hand-guns may have been used in the RE tower houses prior to the 1480's, on analogy with this type of opening in Scotland (Maxwell-Irving 1970-1, fig.2), because this area had exceptional links with the Continent (Chapter 6:b, ii).

Guns seem to have become more common after c.1490 and were well provided for at Kilcrea (*ante* 1494) where the 'inverted keyhole' loops allowed guns to be aimed. They are also seen at Carriganass (c.1520-40) and arrays of loopholes, typically at first-floor level, were a normal feature of subsequent tower houses. The roles of the pre-1487 tower houses were sometimes transformed by the gun; for example, by 1586, the castle of Dunalong seems to have been turned into a gun emplacement commanding the harbourage of Baltimore (Coleman 1926, 32). Dunboy was truncated by its chieftain in 1601 to make it a better gun-emplacement (Gowen 1978, 11).

In later tower houses the muskets were not aimed with any precision and required no more than a small aperture for the end of the barrel. The gunner had to estimate the position of the target from memory. The crow-steps and crenellations were relegated to being decorative features, with no defensive usefulness.

A tower house was not a 'keep' in the English sense from which the defence of an entire castle was

co-ordinated. Even in the most 'castle-like' of the RE tower houses, priorities were for avoiding, not seeking, confrontation. At Dunlough the tower house had no doors onto the curtain-wallwalk, although these could easily have been provided. Any additional doors were judged too hazardous, a telling instance of priorities. The walls were the chief means of defence. Should the walls be bypassed, the defenders could quickly retreat into the tower house and auxiliary refuge turrets where they were provided.

In the last quarter of the Seventeenth Century 'traces' or 'sconces' were built around the bases of tower houses. These structures were much more regular than the old-fashioned bawn, being typically of oblong plan with a 'spur' bastion at each corner (Carriganass). The Carriganass sconce allowed fire to be concentrated on surrounding forces, but its thin stone walls would have been vulnerable to artillery. Other tower houses in Ireland were by 1648 provided with earthen forts on continental lines (Ballysonan, Co. Kildare: Cairns 1991, 8). The lozenge-shaped bastions were influenced by gun-based fortifications employed by English planters such as the fort at Castletownshend prior to 1632 (Smith 1893 edn., 253). This form of bastion is descended from the 'Italian' type that spread rapidly across Europe after c. 1540 (Morley 1976, 36).

By 1600 the vulnerability of the tower house to artillery was becoming plain. The Spanish admiral De Zubiaur viewed them as relics from another era and wrote in 1602 that

'the castles, towers dating from the time there was no artillery, are of little importance..'  
(Coombes, Ware 1978, 56).

The late construction of tower houses reflects the difficulties of transporting ordnance. Even in the 1640's tower houses were being built despite their vulnerability to cannon (Cairns 1987, 23). Although Irish were using artillery against castles elsewhere in Ireland as early as 1555 (de hÓir 1982, 84), there is no mention of its use in the Survey region prior to the Nine Years War, other than at Dunalong in 1537 (O'Donovan 1849, 95).

During the Desmond rebellion (c.1583) the Munster Irish had come face to face with forces trained and equipped to European standards. It was clear that the tower houses were virtually defenceless against such forces equipped with ordnance.

The time-honoured method of defence by retreat to fastnesses meant that it was unusual for tower houses to be obstinately defended. A survivor of the Spanish Armada described how the defenders of an island tower house in Ulster fled to the hills to save their cows and women when a large English force approached 'for they possess no other property, no more movables nor clothing' (Cairns 1991, 4). Fastnesses played an important role in Kerry until the Desmond rebellion showed their disadvantages. Most of the nobles and chiefs of Kerry spent the Desmond rebellion hiding in their

traditional fastnesses (McAuliffe 1991, 123). In the Survey region, fastnesses do not seem to have played such an important role; this may be connected with the apparent rarity of the *creaght* in Cork (Lucas 1989, 113-24) which demanded such bolt-holes to hide the raided cattle. However during the Nine Years War even within peaceful areas the wealthier part of the population in North-east Cork hid their cattle, corn and other victuals in 'woods, bogs, glinns and other like remote places' when called upon to assist in the provisioning of the King's forces.

The Tudor reconquest of the Lordship of Ireland meant that the Irish had to learn to defend their lands directly or lose them. Under such pressures, fifteenth-century tower houses had to be adapted to approximate the role of castles elsewhere in western Europe, regardless of the original intentions of their builders; this took an extreme form at Dunboy (see above). An 'emergency' response to the use of artillery has been excavated there, where the large bawn enclosure was abandoned and replaced by a smaller and more functional set of defences (Gowen 1978, 6). Tower houses could also be strengthened against cannon by internal masonry (Dunalong) or external earth banks against the base-batter (Kilcrea). The forced adoption of Continental military practice meant that peacetime functions of the tower house and its settlement had to be terminated; a tacit recognition that the old way of life had come to an end.

The word *barda*, 'a castle ward' first became commonly used in Irish Annals during the Fifteenth Century (Simms 1975, 107). The *Pacata Hibernia* records that wards were installed in some of the strategically important tower houses during the Nine Years War (i.e. *Leamcon* [22]: O'Grady 1896, 210), but this was an extraordinary state of affairs for which the RE tower houses, with no special quarters for the ward, were unsuitable.

By c.1500 tower houses were built for full-time occupation and more provision was made of 'inverted keyhole loops'. Access to the interior of the GE tower houses was carefully monitored because these buildings were continuously inhabited. Before this time, a chieftain would have had a household troop of bodyguards (*Ceithearn tigh*) (Nicholls 1993a, 430), but this was to defend his person rather than a castle. Provision for a ward only appears in the tower houses built after c. 1570. In the late Sixteenth Century the Gaelic lords in the Survey region continued to rely on the popular 'rising out' of junior clansmen and tenants and the last recorded rising out in the Survey region was in 1641 (MacCarthy 1922, 135). Simms has emphasised the growing dependence of Irish chieftains on mercenary forces (1987, 149). The maintenance of a set number of gallowglas became a duty of a vassal chieftain to his overlord. A tract from Sir Warham St Leger to Lord Burleigh (1588) states that 'the twelveth [tributary of Mac Carthy Reagh] is the countrie of Clan Dermonde, it conteyneth 28 plowlands. He claymeth rising out, the keeping of 16 gallowglases and in yearly spending to the value of £40' (MacCarthy 1867, 31). By this date it was usual for a chieftain to maintain a set number of gallowglas for his own use or that of his overlord. A list made by Carew (*ibid.*, 9) of the forces of West Cork indicates that each chieftain also supported a fixed number of horsemen and *kern* to serve

MacCarthy Reagh. The term *Ceithern* can mean anything from local quasi-bandits to disciplined, well-equipped forces (Fig.u).

The tower house therefore changed from a passive blockhouse, rarely used, to a barracks and headquarters from whence the chieftain imposed his authority or *oireachtas* on the clan; this role of dominance remained essentially psychological until, unwillingly, the Irish were forced to use tower houses for the direct defence of their land. It was only then that the weaknesses of tower houses became apparent. The introduction of the 'equipment' associated with *oireachtas* in its broadest sense was for the most part incompatible with the needs of defence against an enemy who could not be fought with cattle raids. The next chapter examines how the tower house was used for the psychological domination of the clan.



## 6:c The tower house as a symbol of Lordship

Tower houses are now being appreciated as pure architecture, using 'tallness and iconography to establish a tentative sense of impregnability' (McCullough and Mulvin 1987, 37). The role such buildings played as symbols can throw light on the society which created them and is as important as their more utilitarian function. This symbolic significance gradually became of over-riding importance at the expense of most practical requirements. Such factors played a role from the start. The proximity of the two tower houses at Kilcoe and Rincolisky; their similarity in size, their date and their intervisibility strongly suggest their siting was influenced by rivalry.

The superiority of the tower house over other types of stronghold meant that individuals without one were disadvantaged, socially and militarily. By the end of the Sixteenth Century, the *Annals of the Four Masters* contains entries that indicate how the tower house was synonymous with *derbfine* status

'Cormac, son of Teige, son of Cormac Oge MacCarthy, Lord of Muskerry, a comely-shaped, bright countenanced man who possessed most whitewashed edifices, fine built castles, and hereditary seats of any of the descendants of Eoghan Mor, died [1583].  
(MacCarthy 1922, 192).

The later importance of tower houses is repeatedly witnessed by historical record. By the second half of the Sixteenth Century, most events of any significance occurred in, or near a tower house. It became customary for the chieftain to place in each tower house some relative as his lieutenant or 'attorney'. This trusty would head the 'rising out' from the district under his charge when the Lord 'called out his muster' (Gillman 1892a, 18). The pecking order of MacCarthy Muskerry tower houses was closely related to the prestige and degree of consanguinity of the chieftain's relatives, and each time the chieftain changed, the tower houses were redistributed according to rank. In Munster the redistribution of land on the death of any member of the *derbfine* was made by the most senior member of the *derbfine*, the new chieftain. This led to disproportionate amounts of land being held by the chieftain (Nicholls 1993a, 432).

The tower house made it difficult for less senior families to retaliate to such insults or raids by counter-raiding. The posterity of the tower house *derbfine* would be able to gain more land at their expense. Popular election ceased to be necessary for power and major chieftains imported gallowglas families to provide standing armies at about this time (Simms 1987, 149). Every O'Donovan chieftain '... was absolute in his own principality and had a gallows and fosse, the former for the punishment of male criminals and the latter for that of female ones.' (Cronnelly 1864, 260); these were probably near the tower houses. The tower house, originally conceived as a functional refuge, rapidly became the symbol of *oireachtas*. The prestige it brought was no doubt an important spur in the construction of tower houses throughout the Survey region.

The *derbfine*'s firm grip on power led to peace, a circumstance that may actually have encouraged the building of tower houses; in Scotland relatively undisturbed conditions were needed to build a stone castle (Stell 1985, 200-1). The adoption of the tower house meant that ringforts were made redundant although some probably continued to be occupied until c.1550 (6:a). Every unit of clan land in the Survey region was eventually dominated by a tower house occupied by a chieftain or one of his *derbfine*.

The O'Mahony chieftain Conchobar Cabach seems to have used the construction of tower houses as a means of political control, imposing the firm grip of the senior family over its rival families. There is no evidence that junior families were expressly forbidden to build tower houses, but the control of resources (Chapter 6:b,ii) meant that in practice only the *derbfine* chieftain was able to build tower houses. Favoured *ollamh* families or gallowglas families built tower houses in the territory of a sept probably because they were not members of the clan and therefore could not compete for the chieftainship.

Septs were a source of weakness to the ruling house (Nicholls 1993a, 425). The firm hold that one family had on the traditional demesne lands of the *derbfine* created confusion about the chieftain's role and powers (Simms 1987, 149). Father-to-son transfers became more common in the *derbfine* class although this should not be seen as a true acceptance of primogeniture. The process of surrender and regrant that occurred throughout the Survey region in the final decades of the Sixteenth Century seem to have been accepted by the clans at large. Each member of the clan in occupancy of part of the sept lands during a regrant believed he would be able to hold his portion and dispose it to his own sons at will (Gillman 1892a, 32). Many surrenders and regrants were carried out to protect the clanlands from litigation by outsiders and attitudes did not change overnight. At least one MacCarthy Muskerry chieftain, having already obtained his lands by a regrant, was impelled by his conscience to leave his lands and chieftainship to his tanist (MacCarthy 1922, 192). An O'Mahony chieftain did not exercise his newly acquired feudal authority over his cousins who continued as 'owners in fee' letting land to tenants without hindrance (O'Mahony 1910, 13). The position of the landless bulk of the population would have changed very little, regardless of the system of tenure. Ironically the common law principle was adopted by members of the *derbfine* as a weapon to oppose the customary share-out of septlands (Ó Murchadha 1993, 224).

The chieftain alone instigated the construction of a tower house. By using excess income in building nominally communal 'plant' for the clan, a chieftain may have hoped to avert criticism. There are no grounds however to suggest chieftains were overly sensitive on such points. His own family was the ultimate beneficiary and this act of building reinforced his power, itself proof of his suitability for the chieftainship.

As in the context of cattle and the *creaght* (Lucas 1989, 5), Irish sources never give any descriptions of

the functioning of buildings as it is always assumed that the reader is familiar with the technicalities. The civil use of the tower house is however occasionally mentioned in seventeenth-century documents by foreigners who were entertained in them. It is possible that Munster or Cork is the scene of some of these descriptions (Chapter 4:c). The first day of May and the first day of November were festivals which were celebrated by the whole population. Tower houses seem to have provided the locale for the events. Simms (1987, 74) describes the role of the castle as a scene for the Earl of Desmond's 'high *oireachtas*'. These festivities, which seem to have had something of the nature of a Roman Saturnalia, were carried out on a 'green', a gathering place that existed next to each Desmond tower house. Kerns and others were entertained at such gatherings by the Earl himself. Cattle were counted and rents and tribute paid during these festivals. A Friday market was held at Raheen, and an annual fair at Bawnlahan by the chief of the O'Donovan clan Cahil sept in 1615 (O'Donovan 1851, 2446) and such money-spinning activities were no doubt a frequent spectacle at tower houses.

Other more serious activities such as judicial or administrative tasks were probably carried out in the principal chamber of the tower house. A satirical woodcut published in John Derrick's *Image of Ireland* in 1581 (Fig.v) depicts an open-air scene but gives some idea of the ambience of a tower house in its heyday. The chieftain, wearing prestigious traded costume, is seated at the centre of a table with his wife who is sitting cross-legged on a rolled-up fur, to his right hand while an *ollamh* official or relative is seated to his left. The table's role in indicating status is unmistakeable. Steaks are being cut directly from a freshly-slaughtered cow and boiled in a leather bag slung over a bonfire. This may well illustrate one way in which the principal chamber's central hearth was used for cooking. The chieftain is entertained by bardic reciters and musicians while his entourage warm themselves at a great fire in front of the chieftain's table.

The contraction of the principal chamber in relation to other chambers within the late Sixteenth Century tower house indicates a need for efficient use of the interior of the tower house at the expense of a completely public existence. Such diversification made privacy possible, but there is no real evidence that this was the driving force behind the change. The 'solar' was the first important introduction into a layout previously dominated by the principal chamber. The limited evidence suggests that this rather poorly-lit chamber was not at first an alternative principal chamber, but acted solely as a bedchamber. Later, it subsumed many of the functions of the principal chamber. All the essential features for entertainment were present in a more private environment. This parallels the development of the high chamber, the withdrawing room and the closet in contemporary English houses.

Servants were required to run the sort of tower house built after c.1570. There are various clues to indicate their presence: the garderobe was replaced by the dry earth closet, a development that occurred at the same time in Scotland (Stell 1985, 203); existing examples were sometimes blocked for security reasons (Coolnalong [6]). Cooking too was carried out in a kitchen, presumably by specific

cooking staff, although the meagre documentary evidence shows that cooking remained very basic. These tower houses were intended for permanent occupation and (to modern eyes) seem much more comfortable than the RE tower houses. The absence of features of a specifically Gaelic nature at the very late *Togher* [2], other than the overall form and layout of the tower house, did not represent a real break with the past. The elegy of *Tadhg an dúna* (see below) demonstrates the continued importance of the chieftain as more than a landlord.

The time-hallowed position of the principal chamber as the top floor was still favoured in some of the last tower houses, such as Ballynacarriga (1585) and *Cloghda* [31] (1598). A second-floor position for this chamber was however the norm by that date. This would certainly have been a more convenient level and reflects a growing desire for comfort. Spiral stairs were much wider and shallower than those in the RE tower houses for this reason.

Certain segments of the population were likely to spend much time in tower houses because of their special relationship to the chieftain. Horsemen derived from a higher echelon of society than the kerns (Simms 1975, 105-6) and *Tadhg an dúna*'s elegy indicates that a permanent body of "Quick-slaying cavalry", probably both mercenaries and noblemen, was permitted the freedom of Togher Castle. The kerns who made up the ward were unlikely to have been permitted such freedom. The overlying 'high-status' principal chamber and 'low-status' ward room seen at Togher and other unvaulted GE tower houses can be seen as a means of performing such a segregation.

The importance of hospitality cannot be over-stated. Chieftains were reminded of their traditional duties by bards (Ellis 1985, 46). Accession orations and elegies of a MacCarthy and an O'Donovan chieftain allow some precious details to be gleaned about the lifestyle of the 'ideal' chieftain (O'Donovan 1851, 2447; MacCarthy 1867, 241), although the many common 'stock' phrases indicate that they cannot be treated as trustworthy descriptions of individuals. The translated elegy of *Tadhg an dúna* of Togher (MacCarthy Glas 1867, 241) does, however, indicate that a chieftain was still expected to provide hospitality freely on all comers during the first half of the Seventeenth Century. The scenes described by the bard *Donal na Tuile* (1696) indicated how the tower house was used as a scene for the display of the chieftain's power and hospitality.

‘Tadhg, son of Tadhg, the powerful Lord of Crom, the hawk of hospitality, the valorous heir of heroic deeds; in whose heart was neither guile, deceit or falsehood.... Its ancient free princes surpassed all the nobles of Inisfail in generosity: they were animated with impetuous valour, they studied not deceitful deeds nor treachery; but they had true generosity without guile, one towards another! They were a people accustomed to bestow wines and tender beef, and holiday dresses! They were graceful and beneficent; their strongholds were filled with beautiful women, and quick-slaying cavalry viewing them; mirth, playing on harps, poems and songs were at their feasts; their women were prolific, and accomplished; silken, chaste, white were

the slender bodies, and sedate the eyes of their maidens!... Hilarity, drunkenness (occasional) were at their festivals! Loud sounded the song of the bards! Louder the shouting and the roar of cripples and large-bodied vagrant flatterers contending; and of soothsayers and gamblers in mutual discord.'

*Tadhg an dúna's* chieftainship was little affected by his additional powers as landlord. He was second in command of Carbery's 'rising-out' in 1641 (Lyons & Gillman 1895, 491). The large MacCarthy Gleannacroim tower house at Togher combined the comforts of a manor house with a Gaelic identity and symbolised the chieftain's retention of an authority independent from the rule of the Munster Presidency. The ability to keep 'open house' was a means of asserting status and power in a society which had traditionally not stored wealth and where coinage was little used except in the purchase of foreign luxuries (Simms 1978, 67). An O'Donovan chieftain's avoidance of accumulated wealth was highly praised by the bard who composed his elegy in 1639 (O'Donovan 1854, 2447).

Entertainers could expect free access and succour at an important tower house. Bards and skilled musicians figure among the most important and respected. The elegy of Dohmnall O'Sullivan Beare describes the fortress of Dunboy as the birthplace of poets (Breatnach 1955, 117). 'The men of art' could invoke the deadly power of satire to extort hospitality from a chieftain. They included not only the obviously respectable professions of history, law, poetry and medicine but the gamblers, buffoons and jugglers. Feeding the idle was a means of asserting status: *Donal na Tuile's* reference to 'cripples' shows that those unable to work could expect succour from the chieftain's household, some probably became permanent fixtures of the stronghold. The more judgmental English temperament saw the maintenance of 'idleness' as one of the chief evils of Gaelic society.

Craftsmen were also in demand to provide for more material needs; Enniskillen Castle, Fermanagh, resounded to the sound of skilled metalworkers and armourers, while women servants wove fine fabrics (De Breffny 1977, 118). Excavation may yet reveal signs of their workshops in the vicinity of tower houses (Chapter 6:f).

The tower house inevitably led to a settled way of life, and the increasing range of activities carried out there are witnessed in the architecture. Towards the end of the medieval period, Gaelic society had taken on many of the customs of the English; this is illustrated by the transformation of Gaelic law that occurred between 1350 and 1500, during which the pledge, the jury and basic common law concepts were adopted (Ellis 1985, 46). The adoption of primogeniture was made physically possible with the tower house, a structure traditionally associated with endemic minor warfare (Cairns 1991, 3-4). Paradoxically, the very opposite was the case; several recent researchers have arrived at the conclusion that the tower house does not belong to a '...society riven by endemic violence.' (Donnelly 1994, 74; Ní Loingsigh 1995, 142). As stated earlier the English preferred the building of castles, bawns and houses by the Irish to their running loose in *creaghts* (Lucas 1989, 103), and regarded such

buildings as necessary to a settled way of life.

The importance of the tower house as a symbol of lordship is shown by the pattern of their spread in the Survey region (Fig.t). It is clear that any chieftain who had already built a tower house could generally deter their neighbour from building one nearby; a pattern of optimum spacing developed which seems to have prevented any tower house from being nearer than c.2-5km from its neighbour. It was only in circumstances where arms of the sea intervened that clans could 'face each other off' by building tower houses on the opposite sides of bays, rivers and estuaries. In those circumstances, the tower houses were sited to stake claims to the wealth of which the sea was a conduit. Such natural features generally formed borders between clan territories. The labour and wealth expended on the construction of a tower house is analogous to the phenomenon observed in nature whereby an animal expends much energy in useless display both to announce its health and its ready access to resources. This may explain why the tower house form was always adhered to even in circumstances, as at Raheen (Pl. M), where a quay and an artillery emplacement might have been a more practical means of securing control of the harbour. As a '...symbol of junior lordship...' (Donnelly 1994, 74) the Raheen tower house was a signal of the vitality and importance of the O'Donovans and its 'strategic' importance was largely psychological.

The size of the tower house reflects the ability resources of chieftains to attract skilled craftsmen, as well as the size of the populations they controlled. Kilcrea, Carriganass, Ballynacariga, Dunboy and Togher were all foundations of clans and septs who had built few tower houses. The main body of these clans never really adopted the tower house as a domestic form in the way that the O'Driscoll and O'Mahony clans did. These 'chieftain tower houses' tend to be large and played a propaganda role.

Envy was no doubt one factor that encouraged the construction of tower houses (Donnelly 1994, 74) and '...they must at least partly have been built because the next door free tenant had one.' (Neill 1984, 83). Here, it is merely necessary to substitute the word 'chieftain' for 'free tenant'. The introduction of the tower house into a region meant that any important landholder was forced to conform to the new fashion, if only to maintain their position in society; they could otherwise risk 'losing face'. The avoidance of such a disaster was as important as the purely military advantage that the construction of a tower house bestowed. To accept the presence of a looming castle overlooking one's border could be interpreted as a sign of submission to a would-be overlord. Because the late tower house reached a state where its role was heavily symbolic, it took only a slight upset to dislodge it and render it useless as a symbol of power. The Nine Years War provided that upset.

## 6.d The obsolescence of the tower house and its legacy in the landscape

The upheavals of the seventeenth-century in the Survey region obscure the process whereby planters directly assumed many of the functions of the Gaelic seigneurial class they replaced (Simms 1978, 93). The stranglehold of the tower house was gradually relaxing even before 1598. After c.1590 a minor member of *Clann Taidhg Ruaidh na Scairte* chose to build a U-plan house ('Durrus Court' or 'Four Mile Water House') rather than a tower house at the headwaters of Dunmanus Bay while a member of the O'Sullivan clan built a T-plan house (Reenadisert) overlooking Bantry Bay (Salter 1993, 127); why had these individuals chosen to build this innovative form of structure? The new type of building offered no military advantage over the tower house. The low-level, large windows and the yard-thick walls were indefensible against any well-equipped military force. The change must have occurred purely due to social factors.

A process of tower house abandonment was set in train by the events of 1601-2, and it may be assumed that by 1641 many of the minor tower houses were no longer used by important clan members, particularly those of the old-fashioned RE layout. The more modern GE tower houses Togher, Glenbarrahane [13] and Ballinoroher [28] were only abandoned in the Nineteenth Century but not a single tower house in the Survey region has certainly been continuously inhabited down to the present day in a form recognisable as a tower house.

The pattern therefore differs from that of Limerick where the '... majority were abandoned during the 18th century as the landowning classes chose to reside in newly-built, spacious and comfortable country mansions' (Donnelly 1994, 232). The majority of the Survey region tower houses were abandoned long before that time, nor is there any reason to suppose any were intentionally dismantled. The damp climate rapidly reduces any abandoned building to ruins.

In the context of the Scottish castle, Stell points out the danger of adopting a 'Whig' or progressive view of architectural history (1985, 196). It is incorrect to assumed that a steady evolution lead from the tower house to the fortified house in the Survey region. The examples of Togher and Reenadisert shows how the same constructional techniques were used to build both tower houses and fortified houses in the unsettled period at the end of the Sixteenth Century. Technology aside, however, the distinction between house and tower house is unambiguous. The abandonment of the tower house form is complete. There is an absence of the hybridised buildings that tended to be built where tower house construction continued past 1600. Only Poulinalong, just outside the Survey region, had the cruciform roof and absence of wallwalks typical of these structures (Donnelly 1994, 232).

The local abandonment of the tower house had more to do with who won and lost in the Nine Years War than the spread of 'civility' as such; in short, those who benefited from the settlement generally built houses. This was because they were English, Old English or Irish who chose to identify with the

new order, such as Owen O'Sullivan. The majority Irish were unable, due to their desperate financial plight, to build any more tower houses, even if they had been inclined to. This sharp discontinuity, directly linked to historical events, does not seem to be commented on elsewhere in Ireland and reflects the unsettled conditions that prevailed in the Survey region as a result of the Nine Years War and the forceful response of the government. Environmental factors such as soil erosion caused by deforestation, as well as changes in the shoaling of pilchards (reducing fishing income), may also have played a role in this impoverishment of the western clans. Many Irish landowners, dazzled by the cash inducements offered by Sir Walter Coppinger, chose to mortgage their lands to him. Few if any were to redeem their lands.

In 1601, a Spanish general (acquainted with the powers of artillery) remarked that the 'towers' in the region were militarily useless (Coombes & Ware 1978, 56). Nevertheless, examples continued to be built well into the Seventeenth Century elsewhere in Cork. One of the latest is Carrignavar (1616) (Power 1993b, 223). Compared with Limerick, the construction of tower houses in the Survey region ended comparatively early. None certainly post-date the Nine Years War.

New settlers usually chose to build houses on new sites leaving the tower houses to fall into disrepair. The fortunes of 'towns', where present, were closely linked to those of the occupying family of the tower house. The economic base for these settlements' existence would have been cut away when the collapse of the clan system occurred. Small settlements do however frequently exist in the neighbourhood of tower houses today, especially farms; to what extent can this be called continuity? An eighteenth-century house at Kilgobbin was built against the tower house for security, but it is difficult to demonstrate the continuity. Documentary evidence for settlement continuity, as at Castle Salem, is rare but farms frequently exist where forebuildings may be assumed to have stood. Coolnalong was probably extended to the west of the entrance, but all such structures have vanished and the area is now occupied by a farm with no buildings of a demonstrably pre-nineteenth-century date. At Lettertinish, the tower house has vanished leaving a *clachan* that may arguably have its roots in a 'town' or nucleated settlement that existed around the tower house.

By the time of the Down Survey (1657), nearly all the tower houses of the O'Mahonys were untenanted and described as 'ruinous' (O'Mahony 1910, 23). It is wise not to make too much of apparent 'settlement continuity' but a process of 'seigneurial exchange' which often left the basic unit of land division unchanged can be observed here, as in Ulster (Mallory & McNeill 1991, 310). Tower houses frequently occupied sites that were suitable for the construction of a planter's house, due to the presence of water, shelter, the convergence of routes and, perhaps equally importantly, the long associations of a site with lordship. As in Tipperary, the tower house frequently forms the heart of later farms re-employing these sites as the natural heart of demesnes (Cairns 1987, 25). The development, over the previous two hundred years, of the 'estates' shown on the Down Survey map eased the process of transfer to the Parliamentary English settlers.



The process of confiscation meant that units of land passed relatively intact to a new owner (i.e. Castle Salem) and it is only natural that the new owners established themselves in the old tower house as best they could. William Morris, a Cromwellian soldier, lived in the tower house and forebuilding of Castle Salem, which was only altered by his son after his death (De Breffny & Ffolliot 1975, 75). Other settlers made short work of the tower houses in their new estates, but the houses were always on or near the site, if only to reduce the distance stone had to be carried from the demolished tower houses (i.e. Castletownshend). The vanished Castle Towne, Derrinyvaldane [66] and Aghadown [59] were demolished to provide building stone for houses of the Townsends and Beechers. Four others were truncated to provide stone, but four others survived into the Nineteenth Century with only slight alterations. The 'beheading' of tower houses by their Planter and Parliamentary owners may seem of symbolic significance, but this manner of demolition was simply the most practical.

Many of the houses of what was to be known as the Protestant Ascendancy were sited on, or near, the sites of tower houses and some were actually built into their remains. This occurred at more than 12 of the 80-odd tower houses that once existed in the Survey region. This continuity of settlement, also observed in Wexford (O'Callaghan 1981, 11) indicates how advantageous it was for the English settlers, after 1602 and 1650, to occupy existing tower houses, at least until it was possible to replace them. This resembles the situation in Limerick after 1583, where the 'superabundance of castles' meant that the undertakers of the first Plantation had little need to build anew (MacCarthy Morrogh 1986, 127).

## 6:e How 'regional' were the tower houses of the Survey region?

The difficulty of overland travel impeded the spread of architectural ideas, despite this, common themes of design did gradually develop. Regionality was not a theme that Leask explored in his classic work on Irish tower houses but, next to origins, it is the theme that has been most keenly explored in the current renaissance of 'tower house studies'. Perhaps the first systematic study of regionality was made in the context of South Wexford fortified houses where topographical effects not dissimilar to the Survey region '...resulted in buildings with a distinctive Irish flavour, but many of which are also distinctive to the area...' (O'Callaghan 1981, 1). The '... idea of regionality...' (McKenna 1984, 61) was further explored when McKenna observed systematic differences between the tower houses of Tipperary and Lecale (Co. Down) (ibid., 63). Neill also observed a '... definite regional style ... in Knockgraffon.' (1984, 75); Cairns seems to proceed from the view that there is such a thing as a 'typical' tower house and although he sees the tower houses of Tipperary as 'fairly typical' observes that there are 'local styles' (1987, 5).

Because so many parts of a tower house are 'mandatory', like doors, windows, diminution of wall thickness with height, etc. it is only when 'discretionary' features of a highly variable nature recur precisely over great distances, that widespread influences can be confidently identified.

In Limerick 'The architectural details [of the Survey region] present at the tower houses ... belong to a general Irish school of medieval work ... located outside ... [the] county ...' (Donnelly 1994, 222). Even the RE tower houses were influenced by an overall Irish Gothic (Chapter 5:e). It has been observed how widely varied the tower houses in the eastern part of the Survey region are (Chapter 6:a). To what extent can this apparent individualism be explained as the result of repeated incursions by masons from other parts of Ireland?

The influences of neighbouring schools of tower house design can be easily recognised in some instances. The ground plan of Kilcrea shows that it can be understood as part of a particular school that included Conna, Co. Cork (Salter 1993, 106) and Garraunboy, Co. Limerick (ibid., 111). This school can be recognised by the distinctive arrangement and form of the ground-floor defensive embrasures. The technical sophistication of Kilcrea is also matched by such tower houses as Ballindoney, Co. Tipperary (Neill 1984, pl.2). Kilcrea is therefore best understood as an outlier of the sumptuous form of tower house construction that developed in the rich lands of Tipperary and Limerick. In the same way, it is possible to recognise a link between the Survey region SRE tower house of Castle Salem and the SRE tower house of Castlemartyr in South Cork. It is tempting to identify Castlemartyr and Castle Salem as outliers of the 'western group' of SRE tower houses but a more detailed analysis of the tower houses of South Cork would be required to properly understand Castlemartyr's typological/ regional status.

The extended 'two-cell' plan of unvaulted GE tower houses such as Ballinoroher was at first thought by the author to be the result of an 'evolutionary' development of the defensive galleries found in the entrance wall of tower houses such as Castle Salem. The truth is however more complicated. Leask observed that '... many of the numerous Irish tower houses of the XVIth century were ... erected in two stages' (1944, 23). '... Salter focussed attention on' this practice (Donnelly 1994, 134), his published plan of Bouchier's Castle, Co. Limerick (1993, 16) shows well how the initial part of the tower house was built containing a through passage flanked by the guardroom and the spiral stair. This plan closely resembles the 'two-cell plans' of tower houses such as Castle Donovan and Ballinoroher and it is probable that the type of plan arrived at in the 'two-section' tower houses went on to be imitated in tower houses that were built as a single unit. This form of plan can be found in Kerry (Carrigafoyle), Galway (Aughnanure) and Kilkenny (Clara); and is the single most widespread form of tower house plan; the plan form seems to be absent from Ulster, no example being recorded in County Down (Jope 1966). The high degree of standardisation that is a feature of the later tower houses of Munster is demonstrated through comparison of the entrance of Derryhiveny (Leask 1951, fig.67) and Cloghda in the Survey region (Pl.L).

It has been recognised (Chapter 6:b) that at least one 'clan-specific' school of masons existed in the early part of the period under study. The paradoxical mix of technical sophistication and simplicity of layout favoured by the RE tower house masons, and their reliance on putlog scaffoldings and pivoting cranes makes it extremely unlikely the technology was locally developed specifically for building the tower houses. The technology has its roots deep in the Fourteenth Century and probably originates in the need to build or restore parish churches, as the parochial system slowly evolved in the Gaelic areas of Ireland (Chapter 6:a).

The RE tower house is a phenomenon apparently limited to the coast and immediate hinterland of Cork and as such can be regarded as an indigenous development combining features of the 'refuge tower' and the 'relic' Anglo-Norman hall house. Several 'Ireland wide' features, such as the corbel and wall plate system of floor construction were however already present. It is tempting to see the RE tower house as not only the earliest tower houses but as ancestral to the 'Irish Gothic tower house' across Ireland, but this is largely a question of semantics. Only c.14 per cent. of Tipperary castles are documented to a pre-1500 date (Cairns 1987, 8). If it is accurate to talk in terms of ancestral 'Gaelic Irish Gothic' tower houses, the RE tower houses, being exclusively pre-1500, are good candidates. What however is an 'influence'? The same mason? A transmission of detailed design? Or a vague report of the existence of 'towers on the coast'. It is very probable that the Tipperary 'gentry' were aware that tower houses had been built in Cork, but they may have been equally aware of the urban tower houses of Clonmines in Wexford (for example). It is perhaps significant that the hiatus in tower house construction in the first half of the Sixteenth Century in the Survey region was a boom-time of construction in Limerick and Tipperary. At present it is only possible to conclude that the Gaelic coastal area of Cork presented the societal conditions suitable for tower houses at an earlier date than

elsewhere. Tower houses were particularly suitable for the special local conditions and were therefore developed to meet them. The angle loop, a diagnostic feature more associated with fifteenth-century tower houses, is rare in the Survey region but shows that it was not opaque, even in that period, to general traits in tower house design.

It would be misleading to define a typology of the GE tower houses in the Survey region. A wide variety of tower house types were built in the second half of the Sixteenth Century because masons were more mobile than they had been in the Fifteenth Century. These tower houses throw light on the movement of masons across Ireland. A tower house technically very similar to the GE tower house at Raheen exists at Castle Cove, Co. Kerry (McAuliffe 1991, pl.64). The 'inverted V' and the subtle variations in batter required would have required considerable skill to execute.

The use of the 'inverted V' also occurs at Coolnalong and Ballynamona Castle in the Blackwater valley (Healy 1988, 372). It is unlikely that such a complex and ambitious feature was separately invented in different parts of Cork and it is likely that ideas could be transported around Ireland by travelling masons because the feature has also been observed in three separate Munster counties. Cairns also believes that three examples in Tipperary were all built by the same mason (1987, 19) but Donnelly (1994, 221) is more cautious in seeing it as an imitated feature, unlikely to be spontaneously re-invented.

Another feature diagnostic of extensive mason movements is the 'corner bartizan', a rare feature of the tower houses of the Survey region that is widespread across western Ireland. The feature occurs at Ballynacarriga and Carriganacurra in the Survey region, both tower houses dating after 1570. Two examples occur in Galway (Aughnanure and Fiddaun (Craig 1982, 99)). It is also observed in Kerry at Ballymallis (*ibid.*; Leask 1951, fig.68) and as far east as Co. Offaly (Srah: Salter 1993, 76) although this feature does not seem to have been used much in the Lordship of Ireland.

The tower houses of the Survey region have a regional trait of smallness at all periods. This seems to bear out Jordan's comment that there is a '... relationship between size of tower houses and the quality of land.' (1991, xii) but it is perhaps more accurate to see this as an indirect correlation. The size of tower houses seems to bear a stronger correlation to the status of the family which built it. The MacCarthy Muskerry were in constant rivalry with the princely Geraldines for the overlordship of Munster (O'Brien 1993, 139) and it is hardly surprising that the Muskerry tower houses were very large and few and far between, reflecting the exceptional levels of central control exerted by this clan. This phenomenon has also been observed in Limerick (Donnelly 1994, 139). The great magnates tended to occupy enclosure castles of Norman origin (McNeill 1997, 206); it was only when a 'greenfield site' was being built on that they opted for 'super tower houses' such as Kilcrea, Blarney and Bouchier's Castle, Co. Limerick. Castlemore, a neglected enclosure castle of the powerful MacCarthy Muskerries bears out this theory. The small size of the majority of the tower houses in the

Survey region reflects the status of their builders as the 'third layer' of lordship, with MacCarthy Reagh as an overlord and with Desmond as the overlord of their overlord.

The LRE and FRE tower house form was not widely distributed and it can therefore be regarded as a distinct regional development limited to the Gaelic region of West Cork. The form does however seem to have had some influence on the tower houses of the coastal zone as far as East Cork. By the late Fifteenth Century the initiative in tower house design and construction had passed to the counties of Limerick, Kilkenny, Tipperary and Clare. The post-1550 unvaulted GE tower house in the inland and eastern areas of the Survey region can for the most part be regarded as non-regional and belonging to a more general and stereotyped form that originated as a result of two-stage construction. The two-cell plan seems to have then become the norm throughout the Gaelic-controlled parts of Munster and Connacht. The vaulted GE tower houses of the area are subject to very wide variation, and some may be locally influenced by pre-existing RE tower house layout. The double vault layout was certainly not unique to the Survey region and Muskerry and occurs in Co. Clare (McCullough and Mulvin 1987, fig 215) and Co. Kerry (Salter 1993, 102)). Multiple vault tower houses seem to recur without a pattern, according to available resources. The general picture is that West Cork can be regarded as a backwater in architectural terms by 1500.

## 6:f Points for future research

The even emphasis of recording of tower houses and remnants, including those which superficially seemed insignificant, allowed a regional typology for the RE tower houses to be reconstructed and the relationship of the GE tower houses to others in Munster was broadly determined. The uniform methodology, though time-consuming, allowed a greater flexibility of interpretation than a more selective approach; for example, it was only by having a complete series of second-floor plans of UVGE tower houses that it was possible to come to conclusions about general traits in layout of that floor. The dating of early tower houses is broadly compatible with the 'traditional view' but only just. The early date indicated that the RE tower house must be a local development unconnected with the adoption of the form elsewhere in Ireland.

Although a relative chronology of RE tower houses for the Fifteenth Century has been established, this could be made more precise by archaeology. A greater understanding could be acquired by archaeological excavation of tower houses of the sort pioneered by Fahy which provided independent ceramic dating evidence for Dunboy (Barry 1987, 190). Archaeological investigation of the environs of tower houses will develop a better understanding of the settlement forms favoured by the bulk of the medieval Gaelic population; at present little is known about the form these took (ibid., 195).

Although medieval Irish archaeology has supposedly 'taken off', the objectives of the 1990s *Discovery Programme* 'aimed at redressing imbalances in archaeological knowledge' have an emphasis on later pre-history (Limbert 1996, 248). The research for this thesis coincided with a period of remarkable flux in Irish archaeology. The unequal coverage of tower house study throughout Ireland closely reflects the situation with ringforts where '...fieldwork differentials occur where the dynamism of regional bodies varies.' (ibid., 248). Recent legislation has ensured an archaeological presence at sensitive developments but the problems of archaeology in Ulster (Mallory & McNeill 1991, 198, 286) broadly describe the situation in the Survey region as well; current archaeological endeavours are entirely rescue-based and opportunistic. For the most part, without excavation, the rediscovery of medieval Ireland remains a matter of inference and extrapolation from the 'elite' ecclesiastical and military stone buildings. All too often, the researcher is reliant on the interpretation of modern maps to reconstruct Gaelic settlement patterns despite the maps' shortcomings (Barrett & Graham 1975, 42). The thesis has highlighted how there were at least twice as many tower houses in the Survey region as survive today, and documentary study would no doubt reveal additional lost examples such as Derrynivaldane [66]. The near-absence of published surveys of most tower houses means that volunteers, students and amateurs can play a useful role in carrying out surveys. Excavation work however requires a permanent archaeological infrastructure buffered from commercial pressures.

This thesis has demonstrated the importance of metrical information as a means of relating tower houses and confirming typological links through the recurrence of dimensions. This aspect has

previously been neglected but the author hopes that the value of this sort of information has been fully conveyed. The study of setting-out has allowed insights into the design process of tower houses and revealed the surprising degree of sophistication with which the fifteenth-century masons worked. Bettes' unit program has been demonstrated to work in a context unknown to its developer; such a method of analysis will hopefully become a routine tool in the study of ancient masonry buildings.

The fundamental tool chosen as a means of 'sorting' tower houses, the entrance arrangement, has been proven valid. This means that it does not occur in a random manner but closely correlates to all other characteristics of a tower house. No RE tower house with musket loops was found nor were any GE tower houses with putlog holes. While occasional exceptions could be found on either side for most other characteristics (Table 1), the author's belief that the distinctions in entrance layout are chronologically linked was vindicated through documentary evidence. Overall traits in British and Irish castellated architecture such as the adoption of the musket, can be demonstrated to have occurred at about the same time in West Cork. These traits are therefore to be taken into consideration in any study of Irish tower houses.

A close relationship between social change at the elite end of the spectrum and the internal layout of the tower houses has been noted. This is demonstrably linked to chronology but some distinctions, such as the persistence of large principal chambers, probably reflects differences in social organisation across the Survey region during a short period between the Desmond rebellion and the Nine Years War. This shadows the different degrees to which clans had adopted primogeniture and, it is probable, a settled mode of arable farming during that period. A fifteenth-century economic 'boom' in the west part of the Survey region can be directly attributed to the expansion of the fisheries. The relative economic stagnation of that area is reflected in the absence of new tower house construction in the Sixteenth Century.

Although not of direct relevance to tower houses, the thesis and its fieldwork has acquainted the author with the many types of threat to archaeological deposits and the need for accurate recognition and descriptions. It is true that the rocky terrain that often surrounds tower houses is often unsuitable for geophysical survey but there are many instances where simple auger probing can predict the survival of archaeological deposits and a simple inspection by an archaeologist can produce a useful assessment of areas of probable archaeological survival. Educating landowners in these matters is a necessity in a system which is largely reliant on consent and 'self regulation'. Despite these problems, the Archaeological Inventories have made it possible to make comparisons over much of Ireland that would have been impossible a few years ago. This makes thematic study of Irish tower houses much easier. The author has, in searching for information specifically about tower houses, been impressed by the mass of social information about the Survey region in the late medieval period that is buried in unlikely or obscure publications of the last century and the first 20 years of the Twentieth Century. There is a need to make such information more available for the use

of students. This need extends from the preparation of clear clan family trees to the study of the Irish galley, at present only known from one or two stray references. Ideally, information technology could be harnessed to digitise all historic references to individuals in the Survey region up to 1650, for genealogical analysis. CAD packages could also be used to create political and tenorial maps of the Survey region, much more speedily and accurately than is presently possible.

Although tangential to the subject, ringforts need to be better understood, making full use of documentary evidence as well as excavated evidence. The role of documentary information in this thesis has been vital in compensating for the shortfalls of physical evidence.

Other existing research 'databases' can assist in the particular needs of tower house research. The timely publications now going ahead of the field notebooks associated with the 1842 OS will ease access to much 'new' old information relating to structures subsequently destroyed or mutilated. This applies as much to the 'soft' remains of surrounding structures as the tower houses themselves. Westropp's voluminous notes (R.I.A.) are another potential source of information that is currently difficult to employ. The extension of the inter-library loan system to permit researchers other than registered students to use unpublished theses would also be beneficial.

The systematic collection of vanishing folklore in the early days of the Republic up to the 1950s (Ó Cruaí 1993, 919) has created a vast repository of information, much of which is relevant to our understanding of the late medieval/early modern Irish landscape. Although of unproven reliability, chance recollections recorded in the JCHAS and other nineteenth- and early-twentieth-century sources have provided important clues about the internal functioning of tower houses, which are notably absent from written sources. Inaccessible information of this sort probably exists for much of Ireland; again information technology could ease indexing of such sources. The increased interest in clan 'roots', particularly in the USA suggests that funding for this sort of work could be made to encourage its greater availability.

There is a need to study the 'towns' and industrial and agricultural activities that were carried out in the vicinity of tower houses. The Survey region offers a variety of excellently preserved archaeological sites to test research objectives of this sort. For example, the possibility that RE tower houses were built next to a pre-existing *Tigh* or 'hall', could be tested by excavation. Seigneurial Irish timber architecture of the late medieval period may throw light on the development of the tower house, as has been suggested here.

Other areas that can be explored are the geological analysis of building stones and mortar in tower houses. Accurate analysis of petrological composition could enhance understanding of the specialist quarrying and craft use of stone in the Survey region. The gross characteristics show that composition of mortar mixes changed, and a better chemical understanding of this process could be



used as a means of dating.

More prosaically, archaeological excavations may reveal evidence of post-holes for scaffolding in the construction of tower houses. It could also reveal such features as mortar-mixing pits, crane pivot sockets, and other constructional features.

The reliance on unaided observation raises questions about the use of art historical methodology in the study of tower houses. In essence there is no great distinction between using decorative forms and overall layout as a means of sorting and the comparative sparsity of decoration has meant that decorative forms have played only a small role in this thesis. The study of technology has proven as important as overall layout or art historical clues in the study of tower houses. The looser and more intuitive techniques traditionally associated with the study of buildings can be used more effectively in conjunction with the 'archaeological' (in its modern sense) approach. The 'data-gathering approach' has become an accepted means of studying tower houses and indeed many other types of building; but the traditional 'art historical approach', correctly channelled, can still play an important role.

This thesis demonstrates how difficult it is to generalise about the role of tower houses, even in a fraction of Ireland's area. McNeill discusses the defensive impracticality of Munster tower houses (1997, 225); while this is undoubtedly true of some Tipperary tower houses and, to some degree, the later tower houses of the Survey region, the RE tower houses display the same spartan virtues as Co. Down tower houses, with 'modest but effective defences' (*ibid.*).

The role of the tower house as a centre of subsistence has ultimately to be tested by excavation on a case-by-case basis; it is impossible to state (for example) that no tower houses had wells (Cairns 1987, 31) until this has been done. Cisterns in the Survey region strongly imply that wells were present elsewhere.

The strength of tower house situation in the Survey region is also subject to huge variation, with a tendency towards weaker situation with the passage of time. The apparent strength of many RE tower houses is however no real evidence that this was a deliberate factor. Relic settlement form and pattern were equally important in determining RE siting but the lack of detailed knowledge of pre-fifteenth-century Irish settlement forms remains an imponderable in determining tower house distribution.

The castle/religious house complexes observed in the Survey region can be seen as a Gaelic quasi-urban settlement form, even if populations were seasonally transitory. The recognition of such transient settlements elsewhere would allow a more accurate recognition of Gaelic population levels and economic activity.

There is a need to more accurately define the tower house. It may be better for future researchers to talk in terms of 'Irish seigneurial architecture' rather than 'tower houses'. Donnelly's use of the term 'Irish Gothic' tower house (1994, 72) is symptomatic of the need for clear definition.

The author has demonstrated the important role that the second wave of Friary buildings had on the technology of building in the Survey region but this has not been dwelt on in detail. The links between parish church/Friary construction and tower house construction/patronage explored in Meath (Abraham 1984) need to be more generally studied, as does the link between Cistercian crossing towers and tower house construction (Stalley 1987, 146). Metrical analysis may allow the determination of common features in Ecclesiastical and 'military' architecture. The work of Kenneth Nicholls shows how much ecclesiastical records can throw light on the social structure of Gaelic society.

On the surface, the adoption of the tower house can indeed be regarded as an 'anglicisation of the Gaels' (McNeill 1997, 22) but this is to look at the process from a West European and feudal viewpoint. Viewed in retrospect the adoption of the tower house may seem to reflect a move towards feudalism and the advancement of Common law principles, but there is no evidence that this was the intention. Despite this, the Survey region saw, in a Gaelic milieu, the largely independent adoption of a land-based and tenurial outlook prior to any serious pressure or encouragement from the Lordship of Ireland. This system of 'modified tanistry' (Chapter 2:a) was scarcely more acceptable to English sensibilities than complete anarchy; it proved however to be a formidable system, capable of mobilising resources and stimulating economic activity on an unprecedented scale.

A clear-cut correlation has been observed in the Survey region between the importance of a clan, its degree of centralised organisation and the number of tower houses. This fits in with Donnelly's observations (1994, 138-9) but tower house size must also be taken into consideration. The few but very large tower houses of the MacCarthy Muskerries indicate the concentration of resources which would otherwise have been used for many small tower houses. Important clans built few tower houses and seem to have been less reliant on them. This seems to be because tower houses reached the limits of their practicality in such huge structures as Dunboy, Kilcrea and Blarney. Greater tower houses were not attempted both for structural reasons and because the retinues and plethora of functions connected with a great lord such as the Earl of Desmond were simply unable to 'fit' in a tower house. The relationship between such 'super tower houses' and conventional castles does however need to be further explored, including the social effects of 'inheriting' Norman castles. The study of lesser Anglo-Norman castles (McNeill 1997, 130-155), particularly the hall houses, is a discipline in its own right and the segregation of the topic is correct. In the Survey region, as elsewhere, evidence of a continuous typology/tradition of castellation between the Thirteenth and Fifteenth Centuries is lacking. A continuous typology/tradition is something quite distinct from the imitation of 'relic' structures in the landscape that did occur.

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JCHAS	Journal of the Cork Historical and Archaeological Society
JRSAI	Journal of the Royal Society of Irish Antiquaries
PRIA	Proceedings of the Royal Irish Academy
UJA	Ulster Journal of Archaeology

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'Castlehaven, Co.Cork' Pencil and wash view, c.1870 in author's possession

## GLOSSARY

This glossary has drawn heavily on the glossaries to be found in Margaret Wood's *The English Mediaeval House*, (1965) and Katharine Simms' *From Kings to Warlords* (1987)

*agnatic*: related on the father's side (OED)

*archlet*: a little arch

*ashlar*: worked stone, squared stone in regular courses

*astragals*: an upright of either timber or iron in the centre of a window, to which glazing can be attached

*baile biataigh*: a variable land measurement, for example 900 English acres in Co. Monaghan in 1607.

*bartizan*: overhanging corner turret, supported on corbels.

*base-batter*: sloping wall surface, ascending from a wide base to a narrower superstructure.

*bawn*: (Irish, *bádhun*, a shelter for cattle); defensive buildings around a tower house, also used to protect livestock.

*boucharde*: a stone-working tool, shaped like a spiked mallet, from French *bouche* = mouth.

*bretasches*: a timber fort, used by Anglo-Normans

*broch*: a prehistoric round tower found in the Shetlands, Orkneys and northern Scotland

*buannacht*: the billeting of servants or mercenaries

*buannacht bheag*: 'was a money commutation of billeting rights' (Simms 1987, 171)

*carucate*: an area of land equivalent to that worked by a team of eight oxen in one year

*celt*: an edged tool of bronze or stone (OED)

*chamfer*: a surface or edge formed by a cut-off angle. *Sunk chamfer*: plane of chamfer sunk below its edges.

*chiefry*: lordship, dominion, and the dues owing to that position.

*claw-tool*: a clawed chisel with a filed edge which made distinctive serrated marks

*coin/coine/coyne/coinnmheadh*: guesting, the exaction of free billeting for soldiers, servants, occasionally dogs and horses

*coping*: a trim on a wall or parapet to throw water off

*corbel*: a weight-bearing projection from a wall.

*coshery*: an obligatory banquet provided for the chieftain (and his retinue) by certain tenants, once, twice or four times per year.

*creach/creaght*: plunder, booty from raiding, particularly livestock; also refers to the personnel involved in carrying out a raid (Lucas, 1989)

*crenellation*: a battlemented parapet.

*crow-stepped*: describes a parapet whose upper edge is cut into a series of steps

*cuid oiche*: a periodic feast provided by vassals for the lord with emphasis on the food and drink; it could be commuted to a money-payment.

*cutting*: arbitrary taxation by the lord.

*datestone*: inscribed stone recording date of building work

*dendrochronology*: dating method using patterns of tree growth rings found in timber

*derbfine*: the leading family in a clan, tracing a common paternal ancestor

*drawbeam*: long beam used to secure a door or shutter

*embrasure*: door or window recess

*fiants*: English legal documents

*forebuilding*: additional building against the tower containing the entrance staircase

*fosse*: ditch

*freestone*: unbedded, easily worked stone.

*gallowglas*: Scottish mercenary footsoldiers in the pay of Irish lords.

*garderobe*: lavatory.

*garrans*: working horses, sometimes stolen in raids

*harling*: external waterproof coating normally a form of plaster; can also be of mortar

*hipped roof*: a roof with sloping, rather than vertical ends

*hoardings*: defensive wooden galleries supported on brackets at the top of the tower

*hoodmould*: moulding projecting over a window or doorway, either square or following the shape of the arch

*hour-glass loop*: a loop with internal and external splays

*inverted keyhold opening*: a form of gunloop

*jamb*: the side of a window or door.

*kern*: Irish mercenary footsoldiers (Irish: *ceithearn* - a band)

*label stop*: termination of a hoodmould normally to either side of the window head

*lintel*: horizontal beam above a door, window or fireplace

*livery*: dispensing of food, provisions, clothing to retainers or servants (OED)

*loop*: small narrow window.

*machicolation*: an opening in the floor of the parapet through which missiles could be dropped; more permanent than a hoarding.

*merlon*: the solid, upstanding, part of a crenellation.

*mullion*: vertical bar dividing lights of a window.

*musket loops*: narrow slit openings for firing muskets.

*Munster*: the south-western province of Ireland in which the Survey region is located.

*murder hole*: defensive feature consisting of an aperture over a door or entrance lobby through which intruders could be attacked

*newel*: central pillar of a spiral stair

*offset*: a break or ledge on the face of the wall where the wall above is reduced in thickness (OED)

*ogival*: based on an ogree, i.e. a curve shaped like an elongated S.

*oireachtas*: an assembly, sovereignty, authority.

*ollamh*: a professional, someone with a skill, e.g. medicine, poetry, law, metalworking.

**ollamhnacht:** approved as an *ollamh* by the local lord and usually endowed with land

**pintles:** a pin or bolt on which something turns

**plumb-bob:** the weight at the end of a plumb-line

**plumb-rule:** a device for testing the verticality of a building

**pobal:** area/territory of a clan or sept

**podzols:** a soil with a bleached horizon below which is a strongly developed iron/humus pan, poorly drained and infertile

**press:** recess in a tower house wall, usually cuboid

**purlin:** horizontal, longitudinal beam used in rooves, flooring etc.

**rebate:** a longitudinal rectangular recess or groove designed to receive a timber.

**relieving arch:** an arch placed in the wall over an opening to relieve it of the weight of the masonry above.

**render:** a coating of plaster or mortar

**reveal:** a side of an opening or recess which is at right angles to the face (OED)

**ringfort:** banks or ditches, usually circular, enclosing a homestead

**scantling:** dimensions of a piece of timber in breadth and thickness; denotes a square piece of timber

**sconce:** a small fort or earth work

**sept:** a division of a nation or tribe (OED)

**skewback:** the sloping surface on which either extremity of an arch rests (OED)

**slat tighearnuis:** a rod used in the inauguration of a lord, literally 'rod of lordship'.

**slopstones:** hole in the wall through which unwanted liquids were poured, usually onto a projecting slab

**soakaway:** hole in the wall into which water could be poured to drain into the thickness of the wall

**soffit:** the under surface of a lintel vault or arch (OED)

**solar:** private apartment of a castle or tower house's owner

**spandrel:** triangular space between the curve of an arch and its rectangular frame.s

**spudstones:** a small oval-shaped stone with a hole in it into which the stile of a door was inserted

**stile:** the main timber upright in a door

**stooling:** the flat surface of a sill on which a jamb or mullion rested

**tanist:** the second in command, heir apparent to the lord.

**tituladoes:** tenants

**townland:** a sub-division of a parish of no fixed size

**transom:** horizontal bar of wood or stone in a window

**truss:** self-supporting triangular framework within roof which supports other timbers

**voussoirs:** wedge-shaped stones forming an arch.

**wall plates:** horizontal timber along the tops of walls to hold the ends of the rafters/joists

**wallwalk:** path between parapet/battlements and the roof

**window head:** block at the top of window which incorporated any tracery that might be present

**yett:** a defensive iron grille/gate